

JANUARY, 1949

LIBRARY
DEC 28 1948
DETROIT

Flow

THE MAGAZINE OF MODERN MATERIAL HANDLING AND PACKAGING METHODS



FLOW, KEY TO THE SHOW: For Quick Reference, Floor Plan With Booth Numbers...
Classification Of Exhibitors By Products Personnel Attending At Booths



Assured Dependability FOR HANDLING HEAVY LOADS



THERE'S good reason why experienced users give the call to Hevi-Lifts for their toughest handling jobs. It's the hoist that leads the field in heavy-duty design — that handles full capacity loads dependably — safely — year after year. And without the petty annoyances and breakdowns that cause delays.

When you handle costly loads, you want the best. You need it. And it costs you less in the long run.

P&H Hevi-Lifts are available with 5-step variable speed push-button control, offering a change of pace for all motions in lifting, traveling and lowering. Call in a P&H materials handling engineer, or write for literature.

These **ADDED VALUES** are Standard Equipment on P&H Hevi-Lifts

SAFER—P&H's true motor ratings insure against failure at full capacity loads and speeds. Thermal overload protection prevents motor burn-outs. Control current reduced to 110 volts at push-button. Crane type limit switch and double brakes provide maximum safety.

LIFETIME CONSTRUCTION—Precision construction — shaved gears — grease-sealed bearings — moisture-proof, dust-proof, acid-proof.

SMOOTHER OPERATION—Motor specifically built for hoist service — high starting torque, frequent reversal, etc. Controls loads within a fraction of an inch.

Handle it "thru-the-air"
at lower cost

**CAPACITIES
UP TO
30,000 LBS.**

P&H

ELECTRIC HOISTS

4643 West National Avenue
Milwaukee 14, Wis.

HARNISCHFEGER

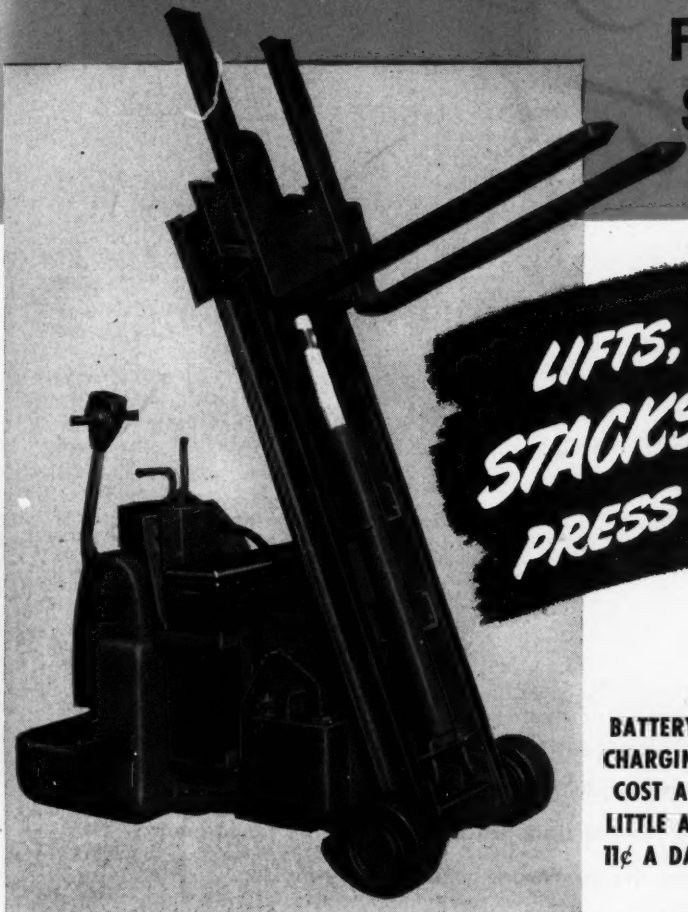
CORPORATION

HOISTS • WELDING ELECTRODES • MOTORS • EXCAVATORS • ELECTRIC CRANES • ARC WELDERS



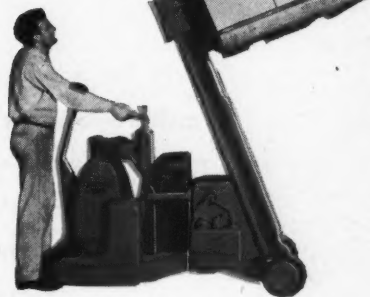
AMAZING TRANSTACKER—FAMOUS FOR CUTTING HANDLING COSTS IN HALF ADDS NEW *TILTING FEATURE*

For Faster, Safer Load
Spotting and Cradling



**LIFTS, MOVES AND
STACKS... ALL YOU DO IS
PRESS BUTTON**

**BATTERY
CHARGING
COST AS
LITTLE AS
11¢ A DAY**



This is the famous Automatic TRANSTACKER . . . the miracle truck of electric power that not only lifts and moves your material, but STACKS it to new heights . . . cutting handling costs as much as *one half*, and relieving labor from tedious back-breaking work.

Now, with its NEW TILTING TELESCOPIC UPRIGHTS, Transtacker makes load spotting easier and faster . . . and cradles the load for maximum protection to operator and merchandise. Manual handling is replaced by simple push-button moving and easy finger-tip operation of the lift and tilt controls . . . all electrically!

Light weight for use in buildings of limited floor and elevator capacities, with low initial cost, NEW TILTING TYPE TRANSTACKER is available in two models . . . single-lift and telescopic, with a single lift of 64 inches

and a telescopic lift of 120 inches.

Both units are engineered to permit passage through seven-foot doors, and full use of otherwise unused storage facilities.

With the telescopic model, finger-tip control lifts a 28-inch, 3100-pound load, a 36-inch, 2600-pound load, or a 48-inch, 2100-pound load in a matter of seconds, thanks to Automatic's exclusive high pressure hydraulics. Performing at top efficiency on standard batteries and chargers, interchangeable with Automatic Transporters, battery charging cost is as little as 11¢ a day, and maintenance costs surprisingly low.

Find out now, the big competitive advantage Transtacker can give your business because of its original low investment and proved ability to cut handling costs. Mail coupon.

Transtacker
A PRODUCT OF AUTOMATIC

*Lighter
LIFT'S LOADS*

AUTOMATIC TRANSPORTATION COMPANY

DIV. OF THE YALE & TOWNE MFG. CO.

141 West 87th Street, Dept. A-9, Chicago 20, Illinois

Please send me catalog
and complete facts on
new, low-priced TILT-
ING TYPE TRAN-
STACKER.

Company Name.....

By.....Position.....

Street Address.....

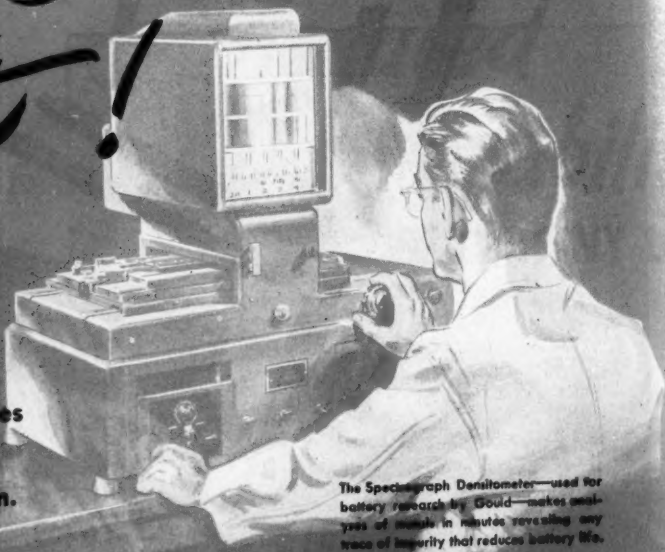
City.....Zone.....State.....

MANUFACTURERS OF THE FAMOUS TRANSPORTERS, TRANSTACKERS AND SKYLIFT ELECTRIC TRUCKS

FLOW • JANUARY, 1949

Only GOULD Has It!

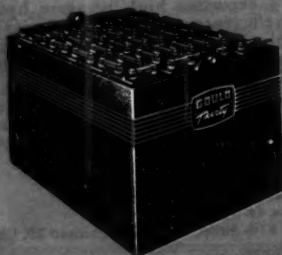
A modern research
laboratory with
pilot manufacturing plant
where advance-design batteries
are constantly created—
and proved before production.



The Spectrograph Densitometer—used for battery research by Gould—makes analyses of metals in minutes revealing any trace of impurity that reduces battery life.

The Spectrograph Densitometer is the most modern tool of analysis. It makes sure that every shipment of raw materials received at Gould's plants conforms to Gould's own exacting specifications before going into production . . . that you get batteries with predictable performance and longer life. Gould has taken the guesswork out of battery-making.

Every component part of every Gould battery is scientifically right. Specify GOULD—FOR FIFTY YEARS THE CHOICE OF ENGINEERS.



The Gould "Thirty"—America's
Finest Industrial Truck Battery!

GOULD

**STORAGE BATTERY
CORPORATION**

Including the Storage Battery Division
of Philco Corporation

TRENTON 7, NEW JERSEY

Always Use Gould Automobile and Truck Batteries

Flow

VOL. 4, NO. 4 • JANUARY, 1949

IRVING B. HEXTER, Pres.
LESTER P. AURBACH, V. Pres.

EDITORIAL DEPARTMENT
MANFRED SCHUELER,
Editor

HENRY F. EATON
Associate Editor

R. W. ELMENTHALER
Associate Editor

PRODUCTION DEPARTMENT
WM. V. LINAS, Director

CIRCULATION DEPARTMENT
E. J. HEXTER, Director

FLOW EDITORIAL AND
BUSINESS OFFICES—

HAROLD F. BEHM,
Business Manager.
L. L. OPPENHEIM.
1240 Ontario Street
Cleveland 13, Ohio
Phone: Prospect 1251

NEW YORK OFFICE—

LEE HAAS
19 W. 44th Street
Room 412
New York 18, New York
Murray Hill 7-3420

CHICAGO OFFICE—

ROBERT E. McKENNA
64 E. Lake Street, Room 1013
Chicago 1, Illinois
Andover 3-4972

LOS ANGELES OFFICE—

FRED FRISENFELDT
Industrial Publishing Co.
Room 403
1250 Wilshire Blvd.
Los Angeles 14, Calif.
Tucker 6703

SUBSCRIPTION RATES

United States and possessions—
\$3.00 per year, \$5.00 for 2 years,
\$6.50 for 3 years.
Canada—\$4 per year, \$6.00 for
2 years.
Foreign—\$5.00 per year.
Single copy price—30 cents.

All communications should be ad-
dressed to FLOW Magazine, 1240
Ontario Street, Cleveland 13, Ohio.
Flow Magazine is affiliated with
the Industrial Publishing Company,
which also publishes:

DIE CASTINGS
TAXICAB INDUSTRY
APPLIED HYDRAULICS
INDUSTRY AND WELDING
OCCUPATIONAL HAZARDS
REFRIGERATION INDUSTRY



CONTENTS

WE CAN DEMAND—an editorial on the American Way.....	25
FLOW, THE KEY TO THE SHOW	
Handy Guide to EXHIBITORS—booth numbers and floor plan.....	26
Exhibitors by PRODUCTS—for quick reference.....	28
Conference Program.....	34
They Will Meet You—PERSONNEL in attendance at booths.....	36

FEATURES

You, Too, Can Clean Up . . . with modern methods— the investment of this small plant paid for itself in 12 months.....	43
This "Trip" Turns Ford Truck Frames Right Side Up.....	48
Sea Horses Ride On CASTERED Horses.....	66
PALEET LOADER In A Filling Line—at Union Oil Co. of Cal.....	96

DEPARTMENTS

Institute and Association Activities.....	50
Men In The News—material handling men on the move.....	75
On The Pallet—news, views, trends.....	76
News From The Sales Field—about distributors.....	112
New Products—equipment of interest.....	102
Opportunities—lines and personnel wanted, positions available, etc... 109	
New Literature—free material available from manufacturers.....	123

FLOW is indexed regularly by Engineering Index, Inc.

"Acceptance under the act of June 5, 1934, at Milwaukee, Wisconsin,
authorized August 15, 1947."



THE IRONBOUND

**RÖL
TRUK**

● Here is the easy to handle truck that lifts, grips and carries paper rolls, barrels, drums, kegs, reels, coils and all similar cylindrical products. It's fully illustrated in Bulletin 9RT.



THE IRONBOUND

**FLO
TRUK**

● This versatile truck is available in various sizes, with either one or two push handles, and for light or heavy duty use. Choice of semi-steel or rubber tired roller bearing wheels.

IRONBOUND PRODUCTS THAT LOWER HANDLING COSTS

Ironbound material handling engineers are specialists in solving industrial handling problems. Although most of the products illustrated are standard "in-stock" Ironbound items, variations of these units or entirely new units can be designed to handle most items ranging from parts on assembly lines to completely fabricated products. Fully illustrated bulletin GP-7 sent on request.



SKID PLATFORMS

★ Built for loads up to 10,000 pounds. "Safety" units have rounded corners and flush angles. Specially designed units built for greater capacities and with special superstructures.



SEMI-LIVE SKIDS and Lift Jacks

★ These units will carry loads up to 2,500 lbs. safely and easily. Furnished with semi-steel, rubber tired or plastic wheels. Thousands are in use on production lines for speeding manufacturing.



"HAULER" DOLLY

★ This dolly was designed for moving milk cases, soft drink boxes, filing cabinets, tote boxes and other heavy hard to handle pieces. Choice of wheel types. Also in sizes for particular products.



"HANDY" DOLLY

★ A dolly for handling furniture and similar items. Frame sides are shaped for comfortable hand grip. The four swivel casters have semi-steel or rubber wheels.



BARREL SKIDS

★ Provided with hooks at one end for attaching to loading platform or truck tailboard. Barrels roll off without dropping. Hardwood rails are reinforced entire length with flat steel bars. Four standard lengths.



PRY BARS

★ For moving heavy machinery, bulky crates, cases, etc. Used in pairs they have 8,000 lbs. capacity. Handle is tough hardwood; nose is one piece forged steel. Machined axles for smooth operation.

BOUND TO BE BETTER
Ironbound
MATERIALS HANDLING EQUIPMENT

IRONBOUND BOX & LUMBER COMPANY

Materials Handling Division

80 HOFFMAN PLACE • HILLSIDE, NEW JERSEY

SKID PLATFORMS • SEMI-LIVE SKIDS • DOLLIES • FLOOR TRUCKS • ROLL TRUCKS • PRY BARS



Temporary Outdoor Storage

Don't half-mechanize...


GO ALL THE WAY in Materials Handling

Going all the way means using power industrial trucks of the RIDDEN type. It means putting speed into your wheels—3 times faster than a hand-led truck.

It means handling *much* larger loads—loads that can be efficiently and safely high-tiered, or wheeled outside the department entirely, yet as accessible as if they had remained there.

It means *savings in man-hours*—savings that are vital with common labor scarce and almost prohibitive in cost.

Transportation is the product of tonnage by time. Why not save both instead of one? Don't ask your walking-talking operator to be pushed around by a machine—*put him on it, where it's safe; make him master of the whole job.*

Elwell-Parker builds power industrial trucks of the RIDDEN type *only*. Have an  man show you how "Going All The Way" will substantially cut your materials handling costs. The Elwell-Parker Electric Company, 4539 St. Clair Ave., Cleveland 14, O.

ELWELL-PARKER

POWER INDUSTRIAL TRUCKS

Established 1893

FREE BOOKLET ON
SCIENTIFIC MATERIALS
HANDLING



Send for a copy of
"Industrial Logistics"

VISIT OUR EXHIBIT

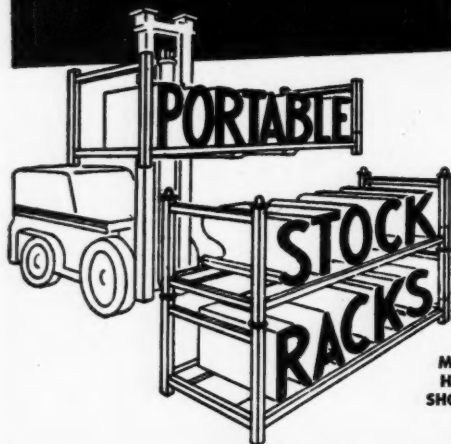
NATIONAL
MATERIALS HANDLING
SHOW

PHILADELPHIA--JAN. 10-14, 1949

BOOTH 615, 616, 713, 714

**FIGURE COSTS CLOSER
WITH PLANNED**

Efficient Handling!

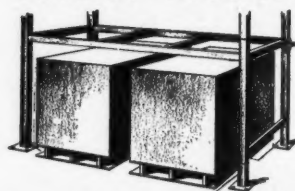


**MATERIALS
HANDLING
SHOW BOOTH**

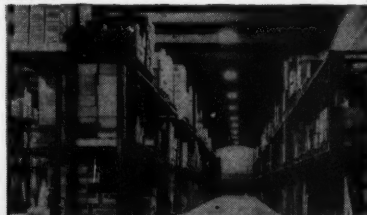
37

From receiving to storage to production and between various departments and shipping docks, Portable Stock Racks allow movement of parts in UNIT LOADS eliminating costly piece by piece handling. They save valuable FLOOR SPACE by stacking one on top of the other to ceiling heights. Cut down on damage and expensive reworking costs. Standard and special designs for all types and shapes of materials.

PALLET RACKS



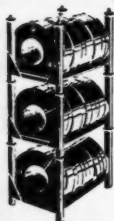
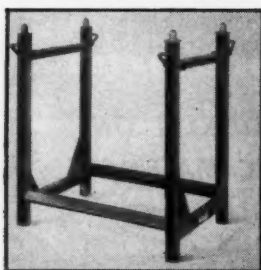
Speeds up order-picking and case handling. Easy to install for all capacities in regular or heavy duty models. No cutting or welding necessary. Stack palletized materials of standard or uneven heights. Extension posts allow vertical adjustment for different loads. Removal of any pallet from the stack is possible without disturbing others.



RUGGED, DURABLE CONSTRUCTION

STACKING TYPE

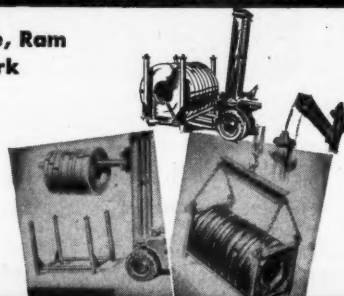
STURDY CENTER-WELD TUBING



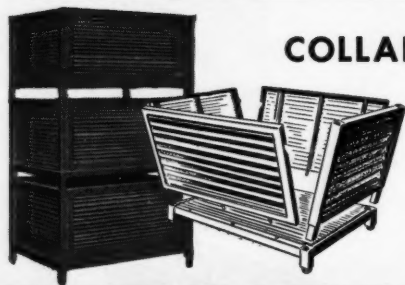
COIL RACKS

Wire or strip coils can easily be stacked in high tiers to utilize your "AIR RIGHTS", thereby releasing new space to production. Handle coils in multiples by fork truck, or crane. Racks available for any diameter coils.

**Crane, Ram
or Fork**



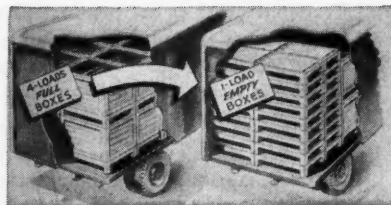
WRITE FOR OUR CATALOG



COLLAPSIBLE BOXES

Knocks down to 1/4 size for economical return shipment. Rugged units readily assembled for use as rack or box as well as steel pallet. Nesting caps on legs permits safe stacking.

Box, Pallet or Rack



21552 HOOVER ROAD
PHONE LAKEVIEW 1-2800

**EQUIPMENT
MFG. INC.**

POST OFFICE BOX 3838
DETROIT 5, MICHIGAN

WANT A 10-FOOT LIFT?

Get the telescopic *WORKSAVER* TILTING FORK ELECTRIC TRUCK

Pallet loads, skid bin loads, loads with stringers attached—all can be piled high with this new 10-foot lift Worksaver. It gives you every advantage of available cubic footage in storage areas, in freight cars and motor trucks.

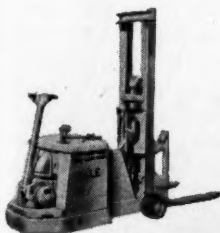
It's just the right truck for easy, fast and safe operation wherever clearances are low, wherever aisles are narrow. It lifts and travels by electric power. And the Telescopic Worksaver is rugged, powerful, economical to use. There's ample battery capacity for two days' operation without recharging.

So if you want to cut your production costs—if you want to put new speed into handling operations—the new Yale Telescopic Worksaver is the time, effort and money-saving electric truck for you. Get all the facts. See the classified section of your telephone book for our nearby representative or send for bulletin M-123. The Yale & Towne Manufacturing Company, Philadelphia Division, Philadelphia 15, Pa.

STANDARD MINIMUM HEIGHT: { 83" for factory and warehouse use
68" for freight car and motor truck loading

FREE FORK LIFT
60¾" on 83" high models
45¾" on 68" high models

Fork carriage elevates to minimum height before secondary uprights start upward. This "free fork lift" is an outstanding advantage because it permits stacking to greater heights where clearances are low and in freight cars and motor trucks. The Telescopic Worksaver is the only truck in its class that gives you this feature.



CAPACITIES:

2000 LBS.
up to 48" load length
2500 LBS.
up to 36" load length
3000 LBS.
up to 28" load length

MATERIAL HANDLING MACHINERY

CUTS PRODUCTION COSTS... SAVES TIME... SAVES EFFORT... PROMOTES SAFETY



INDUSTRIAL SCALES • HOISTS—HAND AND ELECTRIC • TRUCKS—HAND LIFT AND ELECTRIC

55 60

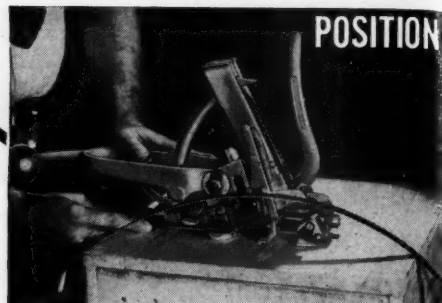
4 STEPS 5 SECONDS

with the improved

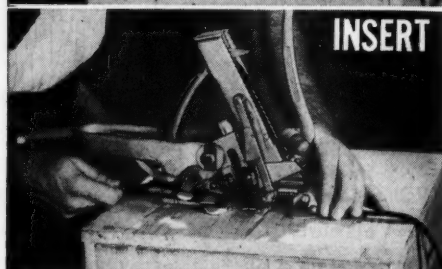
STANLEY ACE STRAPPING TOOL

Here's how to put strapping on a production basis. This improved STANLEY ACE STRAPPING TOOL is light — fast — simple — even a beginner can make time with it. Magazine holds 75-100 seals — is easily loaded and seals in any position. The "Ace" is made in three different sizes, to handle $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{5}{8}$ " strapping.

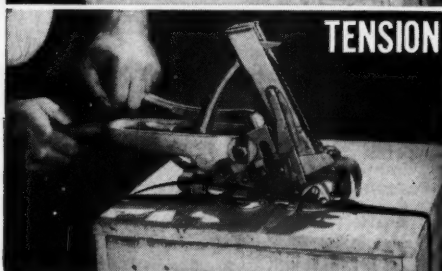
Decide now to put the "Ace" to work for you! Write for full information or ask for demonstration.



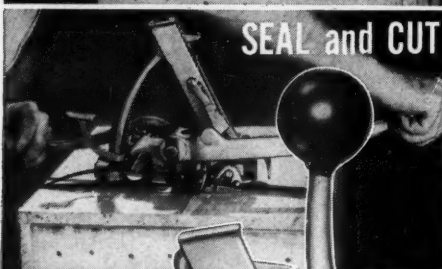
POSITION



INSERT



TENSION



SEAL and CUT

STANLEY

Reg. U.S. Pat. Off.

HARDWARE · HAND TOOLS · ELECTRIC TOOLS

SEND FOR BOOKLET ➡



The Stanley Works
Steel Strapping Division
203 Lake Street, New Britain, Conn.

Gentlemen: Please send me free folder on the Improved ACE Strapping Tool.

Name.....
Title.....
Company.....
Address.....
City..... State.....

JANUARY, 1949 • FLOW

HO

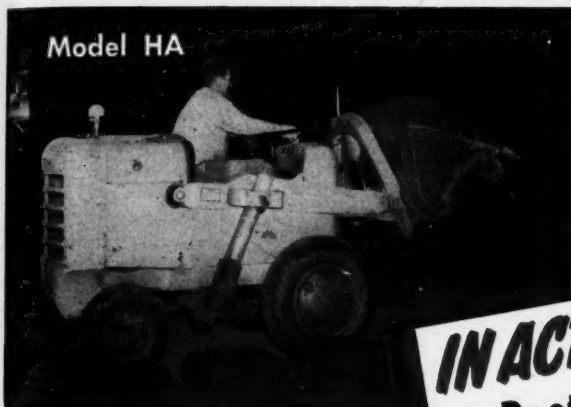
B
in
li
ch
yo
H

ju
tic
at
Sc
ev
ou
th
ma
or
du

FLOW

BULK MATERIALS HANDLING SIMPLIFIED

Model HA



Model HF



IN ACTION
at Booth 606
Material Handling
Exposition
Philadelphia, Jan. 10-14



Payloader Buggy

HOUGH PAYLOADERS Designed to Handle Bulk Materials

Bulk materials of any kind can become bottlenecks in any plant. Are you equipped to scoop up, carry, lift and unload your mass materials quickly and cheaply? Do you require expensive containers for your ingredients, parts or bulk products in transit? How much do you handle with each operation?

Hough PAYLOADERS are designed and built just for this purpose—to move the largest quantities of bulk materials in a single operation—to operate in congested areas—with simplicity and speed. Scoop up your loose materials in PAYLOADER's even-keel bucket, move them without spilling in and out of box cars, through narrow aisle ways, and through mud and soft ground if you wish. Load your materials into any hopper, container or bin—high or low—by means of its dust and noise reducing dumping mechanism. PAYLOADER's hydraulically

controlled dump release has numerous industrial advantages.

The same PAYLOADER unit which will really solve your major bulk material handling problems will likewise be an overtime workhorse for plowing and loading snow, cleaning yards, levelling waste dumps and grading. PAYLOADERS are dependable—because they are the result of materials handling experience since 1920. The Frank G. Hough Co., 731 Sunnyside Avenue, Libertyville, Illinois.

IF YOU MISS THE SHOW, send for literature on the 10½ cu. ft. PAYLOADER, the ¾ yd. Model HF, the 1¼ yd. Model HL, the 1½ yd. Model HM or the 2 yd. PAYLOADER Buggy.



HOUGH
PAYLOADER
Mfg'd. by THE FRANK G. HOUGH CO.



The BAKER Line of Electric Fork Trucks

LIGHTWEIGHT

FQH



1000 to
1500 lbs.
30" long

FRH

FAH



2000 to
3000 lbs.
48" long

FBH



4000 lbs.
48" long

AIMH
(Articulated)



4000 lbs.
54" long

JOMH



4000 to
12,000 lbs.
48" to 60"
long

JOM



14,000 to
15,000 lbs.
48" to 72"
long

JOM



16,000 to
18,000 lbs.
48" to 78"
long

JOM



20,000 lbs.
84" long



*Now... BAKER fills the gap
with a NEW LIGHTWEIGHT
LOW-COST ELECTRIC FORK TRUCK
in the 2000 lb. class!*

Specifications

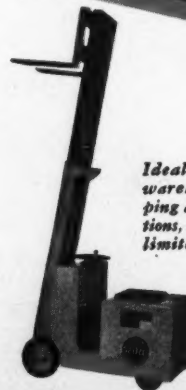
Capacity—2000 lbs., 36 inches long
Width—30 inches
Length—63 inches (exclusive of forks)—
Requires only 76½ inches plus length
of load for right angle turn
Weight—3850 lbs. including battery
Lift—Tilting, telescoping to 119 inches
Battery—36V, 250 ampere hours—Will run
10 to 11 hours in average service.
Travel Speed—400-440 FPM
Lifting Speed—18-26 FPM

DESIGNED TO MEET A SPECIFIC DEMAND IN MATERIAL HANDLING

The Baker FQH 1000 lb. Fork Truck introduced a year ago received enthusiastic acceptance. It also disclosed the urgent need for a similar truck with greater capacity, and a 1500 lb. model was made available. Now Baker completes its line with the FRH-20, a light weight, low cost, highly maneuverable electric fork truck in the 2000 lb. field . . . This truck is ideal for plants where narrow aisles, limited floor capacity and low capacity elevators are factors and where loads can be limited to 2000 lbs., 36 inches long.

*See this new truck in action at the Materials Handling
Exposition, Philadelphia, January 10-14, 1949.*

BAKER INDUSTRIAL TRUCK DIVISION of The Baker-Raulang Company
2185 West 25th Street • Cleveland 13, Ohio
In Canada: Railway and Power Engineering Corporation, Ltd.



*Ideal for receiving,
warehousing, ship-
ping and other opera-
tions, where loads are
limited to 2000 lbs.*

Baker INDUSTRIAL TRUCKS

Bassick Casters

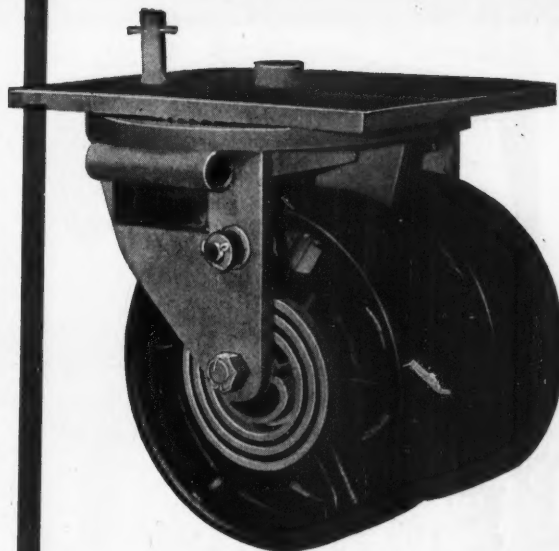
wheels
and
wheel mountings

A size and type
for every materials
handling problem

The casters illustrated are only a few of the many types designed to fill your needs. For all types of casters and wheels, or engineering help with special materials handling problems, write to caster headquarters: THE BASSICK COMPANY, Bridgeport 2, Conn. Division of Stewart-Warner Corporation. Canadian Division: Stewart-Warner-Alemite Corporation, Ltd., Belleville, Ont.



Making more kinds
of Casters...
Making Casters
do more



18" Double Wheel Floating-Hub Giant
Weight, 675 lbs.



"Diamond-Arrow"



"Little Giant"



"Silent Steel"



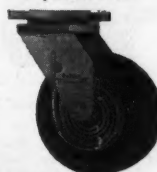
Trailer



Pipe Socket



Grooved Wheel



The "Airliner"



"Pneumatic" Wheel

Bassick



The Transport (6 types available) makes all units quickly movable. It is half-truck, half-platform; has the advantages of both, the disadvantages of neither.

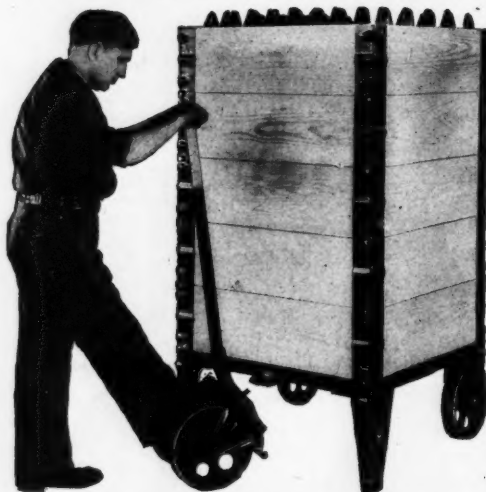
Rugged 8-way Pallets (3 types) last for many years, function perfectly with hand or power lift trucks.



IF YOU WANT TO KNOW
WHAT STANDARDIZATION CAN DO FOR YOU—

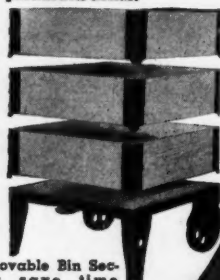
THE TURNER SYSTEM OF MATERIALS HANDLING

*There is No Other Book Like It!
There is No Other System Like It!*



"DELIVER THE BIN AND SAVE THE HANDLING" cuts production in many ways. Wooden-side or All-steel Bin Sections, Racks, Trays or Die Tables fit on the Turner Transport which is moved by hand jimmy, power lift truck, crane or tractor.

Leaders of Industry have used the Turner System in increasing numbers for 30 years — to save UP TO 50% IN FLOOR SPACE, LABOR AND EQUIPMENT COSTS. Our Book describes the System and shows how to make BIG SAVINGS in materials handling which accounts for 20% to 30% of each production dollar.



Removable Bin Sections save time when loading or unloading. Bins are always the RIGHT SIZE.



Movable Die Tables save time, space, valuable dies.



Movable Tray Racks make materials handling easier.

FACTORY SERVICE COMPANY

4607 NORTH TWENTY-FIRST STREET

MILWAUKEE 9, WISCONSIN



"When we figured **ALL** costs,
we settled on **ELECTRIC TRUCKS.**"

"Yes, Jim, we once slipped on that one, too . . . comparing price-tags only . . . when buying industrial trucks. But a check of overall costs opened our eyes to the real story. Matter of fact, on our battery-driven trucks, savings in maintenance and power alone offset the price-tag angle . . . in a hurry! That's one of the reasons why we've settled on 'electrics'."

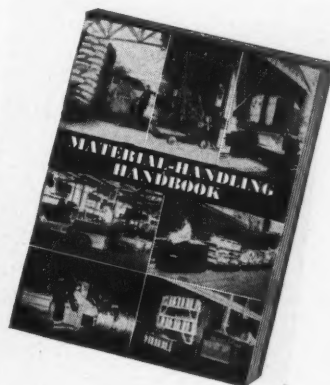
Familiar testimony from users who have made their own comparison of total costs. Others, who look beyond the price-tag before they buy, see top economy in basic and exclusive features of the electric industrial truck. For example: **LOWEST-COST ENERGY**—electric power at ever-decreasing cost—and

most reliable for all industrial power requirements.

SIMPLEST, STURDIEST CONSTRUCTION—the simplicity of electric transmission and control. The inherent stamina of E.I.T.A. Recommended Construction Standards—stamina that costs less than breakdowns in material flow.

UNEXCELLED PERFORMANCE RECORD—over 90% of the electric trucks sold in the past twenty years, to more than 300 fields of industry and distribution, *are still in constant service.*

These are some of the values behind the price-tag and behind the swing to electric industrial trucks.



**SEND FOR
THIS FREE BOOKLET**

You will find tested, how-to-do-it suggestions for raising man-hour and machine-hour productivity—in the **MATERIAL-HANDLING HANDBOOK**. Your letter will bring it.

THE ELECTRIC INDUSTRIAL TRUCK ASSOCIATION

2928-L Forty-first Avenue • Queens Plaza • Long Island City 1, N. Y.

industrial's *helping hands..*

FOR YOUR MATERIALS HANDLING

Save
**TIME • SPACE
LABOR • MONEY**



industrial's STAK PALLET

Incorporating many practical features and advantages heretofore absent in pallet design, STAK PALLET permits stacking of loaded pallets, one upon another, with complete safety to both materials and personnel—permits transporting and storing of unevenly piled materials without risk of sliding, tilting or spilling—prevents crushing and fusing of soft or heated materials. The four uprights which support the stacked loads, are quickly collapsible for compact storage when pallets are not in use. The STAK PALLET, of all steel construction and with a 4000 lb. (dead weight) capacity, steps up efficiency and safety in an unlimited range of usefulness.



industrial's BALE CONVEYOR and LOADER

This newly designed stationary unit operates in conjunction with a baling press and automatically picks up, conveys and loads baled scrap metal or other materials at railroad sidings. It eliminates the necessity and expense of costly hand labor, magnetic cranes and other hoisting equipment, and cuts time and handling costs amazingly. This conveyor and loader is ruggedly constructed of steel and features an electrically powered chain drive for safe, dependable, continuous and economical operation.



industrial's Revolutionary BAR-TENDER Efficiently Facilitates and Speeds-Up Sorting, Stacking and Storing of Bar Metal Stock

Warehouses and others handling angles, channels, tubing, etc., will especially appreciate the amazing time and labor economies and efficiency provided by this long-needed unit. With motive and lifting power supplied by a fork truck, the revolutionary new BAR-TENDER, containing bundles of bar stock, can be raised, lowered and transported from bin to bin where the single operator easily selects and slides stock into the proper bins with the aid of special bearing-mounted rollers. Being of all-aluminum construction, the BAR-TENDER requires no maintenance—another important economy.

INDUSTRIAL specialists in the design and manufacture of Metal Aids To Industry, also builds other materials handling equipment including trucks and tote boxes.

COMPLETE, COMPREHENSIVE INFORMATION AND PRICES ARE IMMEDIATELY AVAILABLE UPON YOUR REQUEST. ADDRESS DEPT. F

industrial WASHING MACHINE CORP.
New Brunswick New Jersey

**BOOTH
337**

MATERIALS HANDLING EXPOSITION

presents

The **LOAD DISPATCHER**

It will be well worth your Visit to PHILADELPHIA

... whether you are a
Distributor, Dealer or User ...
to inspect the
1949 Load Dispatcher Models
and Accessories.



There are thousands of material handling jobs that the Load Dispatcher will do better, quicker, and with a saving of money. That's because it excels in maneuverability—ease of handling—getting around where the going is tight, and for economy. It has many features of convenience, unique and exclusive, in its power unit and platforms that adapt it to an endless variety of materials and containers. Its quality is unsurpassed and the price is low because the Load Dispatcher is the simplest thing on the market and carries nothing not absolutely needed for its best performance—no clutch—no transmission—no batteries—no radiator—no reverse gears. It is truly ...

"A Remarkable Truck at a Remarkable Price"

● The model illustrated above is the Pallet Carrier. Load Dispatchers are made and are available for immediate delivery in Hydraulic Lift and Fixed Platform Types, and as Tractor Towing Units, all at interesting prices. Capacity, 3000 lbs.

SOME
VALUABLE TERRITORIES
OPEN FOR DISTRIBUTORS
WHO CAN QUALIFY

SCHWITZER-CUMMINS COMPANY

MATERIAL HANDLING
TRUCK DIVISION

1145 EAST 22nd STREET • INDIANAPOLIS 7, INDIANA

THIRTY COPPER-OXIDE RECTIFIERS

Keep Electric Trucks on the Move



Moving more than 500,000 pounds of material each week through the Pentagon Building in Arlington, Virginia, 30 industrial trucks are kept on the job by this efficient installation of General Electric copper-oxide rectifiers.

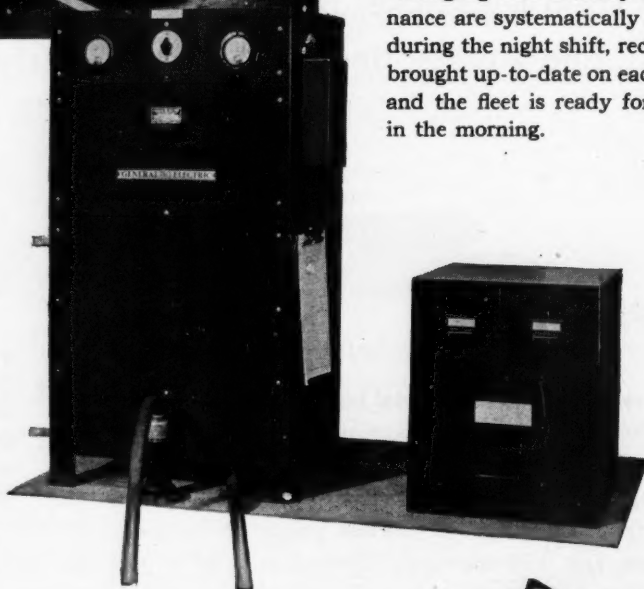
IN THE PENTAGON

To move material fast through the 35-acre Pentagon Building, 4,500 pallets, 500 skids, and 51 trailers are handled by a fleet of 30 electric industrial trucks. To keep these trucks at peak efficiency, a well-organized charging room makes use of 30 General Electric copper-oxide rectifiers.

In this layout, each truck has its own numbered stall, equipped with a General Electric rectifier, filling hose, and record board. Charging and battery maintenance are systematically handled during the night shift, records are brought up-to-date on each truck, and the fleet is ready for its job in the morning.

RECTIFIERS FIT YOUR LAYOUT, FIT YOUR HANDLING NEEDS

Whether your setup calls for a centralized charging station like the Pentagon Building layout, or rectifiers strategically spotted on truck routes—General Electric copper-oxide rectifiers do the job the way you want it done. **SMALL**, they take little space—can be used right in work areas. **STURDY**, they give years of service, because there are no moving parts except the ball-bearing-equipped cooling fan. **EFFICIENT**, they operate with no noise; time the charge; shut off automatically; and disconnect both from the incoming line and the battery.



CHECK DIMENSIONS • CHECK PERFORMANCE

The booklet, *Aids to Economical, Faster Material Handling*, gives dimensions and performance characteristics on General Electric copper-oxide rectifiers. Check them with your own layout and performance demands. For your free copy, write to Apparatus Dept., General Electric Company, Schenectady 5, New York.



GENERAL ELECTRIC

HERE'S WHY

TOURNACRANES

ARE TODAY'S
MOST PROFITABLE UTILITY
LIFT-AND-CARRY TOOLS

Tournacranes Can Carry Capacity Loads— Besides handling lifting and spotting jobs, this one-man rig can carry what it picks up... One tool to handle all three of your job operations!

Tournacranes Have Telescopic Booms— Extendable boom provides lifting range from 8'9" to 31'. Boom can get close to the load, with short hoist cable to eliminate load swing and cable snarls.

Tournacranes Are Electrically Controlled—

Finger-tip switches control all steering and crane operation. Smooth, lightning-fast power comes from high-torque motors located at work centers. Motors have instant, automatic brakes to assure non-slip load control. System's extreme simplicity means any man on your crew can operate crane right now.

Tournacranes Operate in Unpaved Storage Yards

— Exclusive power-proportioning differential that guarantees effective driving power, plus big, low-pressure tires add up to real off-road mobility...

Means you spend no money for yard paving when you use a **TOURNACRANE**.

Tournacranes are built in a complete capacity range, so use the tool that fits your job. Write without obligation for LeTourneau Engineers' solution to your materials handling problem.

LETOURNEAU
LET
EQUIPMENT

R.G. LETOURNEAU INC
LONGVIEW, TEXAS

For Sturdiest Construction
 .. Safest Performance
 .. Long Life Service



Specify *Phillips* MATERIALS HANDLING EQUIPMENT

When you specify Phillips Materials Handling Equipment ... you choose the best ... because equipment by Phillips is built for a long life of dependable, safe and economical service. A few of these sturdy products are illustrated ... many others are available to meet any materials handling problem. Fill in the coupon below and mail today, for complete data.



PHIL-DUMP



STEEL PALLET



STURDY BUILT SKIDS



SKID DUMP



INDUSTRIAL TRAILERS



SIDE DUMP TRAILER

Phillips Mine and Mill Supply Co.
 2227 Jane Street, Pittsburgh 3, Pa.

Please send complete data on the following:

- | | | |
|---|--|---|
| <input type="checkbox"/> Phil-Dump Jr. | <input type="checkbox"/> Industrial Trailers | <input type="checkbox"/> Side Dump Trailers |
| <input type="checkbox"/> Steel Pallets | <input type="checkbox"/> Skid Dumps | <input type="checkbox"/> Skids |
| <input type="checkbox"/> Have Representative call | <input type="checkbox"/> Phil-Dump | |

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

*Clip this coupon
 Fill in
 and Mail Today!*

PHILLIPS

2227 JANE ST. • PITTSBURGH 3, PA.

A 15-minute demonstration will show
you how to

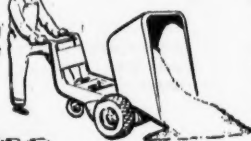
SAVE UP TO 20 MAN- HOURS A DAY

You can make these savings with the BELL Prime Mover... a new conception in materials handling, plant-maintenance equipment, and all around utility... a machine that combines the functions of a giant self-propelled wheelbarrow, a half-ton platform truck, and a powerful snow plow or scraper.



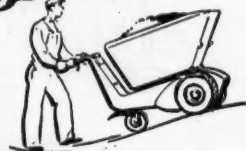
Bucket holds 10 cubic feet... 18 with side-boards.

Mechanically dumped... operates by foot pedal.



9-square-foot steel platform takes half-ton loads.

Climbs 20% grades fully loaded.



50-inch steel blade makes Prime Mover an efficient snow plow.



FEATURES:

- gear driven... no belts or chains
- fully enclosed engine protected against dirt and moisture
- clutch, engine, transmission all run in oil
- switch from bucket to platform without tools... in less than a minute
- turns in its own length (63½"); width 31½"
- 3-gallon tankful of fuel gives 8 hours continuous service

A PRODUCT OF **BELL Aircraft CORPORATION**

*PATENTS & T. M. REG. PENDING. COPYRIGHT, 1949

● Hundreds of plants now use one or more Bell Prime Movers to haul bulk materials to and from processing stations and to relieve workmen of heavy lifting and pushing. These plants report savings in payroll as high as \$36.00 a day for each Prime Mover.

Not only do Prime Movers speed production and cut costs, they also contribute to morale. For example, a tannery purchased its Prime Mover

simply to make a disagreeable and heavy job easier for workmen. Another plant bought a machine so as to utilize the services of an elderly worker no longer able to do heavy labor.

Wherever wheelbarrows or hand trucks are used in your plant, the Prime Mover should be carefully considered. Not only will it perform this work better and at lower cost, but it can be shifted to other duties... plow-

ing snow, grading driveways, hauling construction materials or maintenance equipment. Its versatility and usefulness in and about a plant are virtually unlimited... but see this for yourself at a demonstration.

Simply sign the coupon and clip it to your letterhead. We'll put you in touch with a nearby distributor... a member of our nationwide sales and service organization.

SEND COUPON NOW!

BELL AIRCRAFT CORPORATION, P. O. Box 1FI, Buffalo 5, N. Y.

Please send me facts on the Bell Prime Mover. Who is the nearest distributor?

Name _____ Company _____
Address _____ City, Zone & State _____

SEE OUR EXHIBIT AT THE MATERIALS HANDLING EXPOSITION, PHILADELPHIA, JAN. 10 TO 14

FLOW • JANUARY, 1949

PLANT MANAGEMENT: Start Cutting Costs Here*

General Electric's Authoritative New Movie
And Technical Manual Tell You How To . . .

- Make a materials handling survey in your plant
- Plan an integrated materials handling system
- Utilize new materials handling techniques
- Select the best materials handling equipment

YOU WILL START REALIZING the full significance of modern materials handling—and how its utilization can help you reduce that 36 per cent of your over-all production costs which doesn't add anything to the value of your product—when you see General Electric's new sound-color movie, "Materials Handling—In Receiving, Warehousing and Shipping." In this movie you will see the materials handling problems of a cross-section of industry—your problems. The solutions to these problems are worked out before your eyes with animated drawings and diagrams.

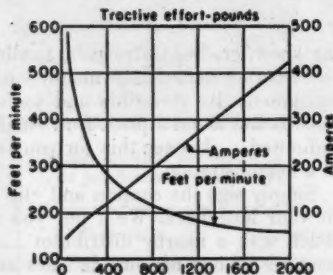


STEPS YOU SHOULD TAKE to correct existing conditions are all outlined completely, concisely in the 92-page technical manual which supplements the movie. Here is a partial list of subjects covered:

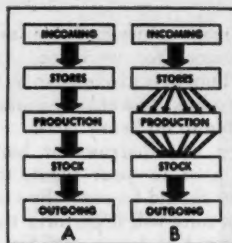
- What is modern materials handling.
- Materials handling equipment and applications
- How modern materials handling speeds production
- Pallets, skids and containers
- Modern materials handling in receiving, warehousing and shipping
- How to make a materials handling survey
- Unit load shipping system
- Engineering data on conveyors, cranes, hoists, trucks

THIS MOVIE AND MANUAL are the newest additions to General Electric's **MORE POWER TO AMERICA** program, designed to help industry cut costs through more electrification. You are invited to see it at your earliest convenience. Arrangements can be made through your materials handling equipment supplier, utility, your G-E representative, or simply by returning the coupon below.

Don't delay! See it soon! This Materials Handling Program may show you the way to **LOWER HANDLING COSTS . . . GREATER PRODUCTION . . . INCREASED PROFITS.**



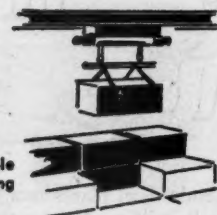
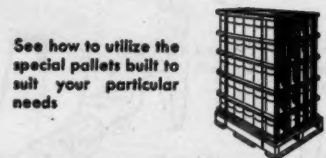
See how to estimate number of trucks required in your handling system



See how to make a work-simplification chart



*A recent survey of 120 factories disclosed that **MATERIALS HANDLING COSTS** are 36 per cent of over-all production costs instead of the 25 per cent previously acknowledged.



General Electric Company, Section F668-69
Apparatus Department, Schenectady, N. Y.

☐ Please make arrangements for me to see the full-color and sound film "Materials Handling—In Receiving, Warehousing, and Shipping"

☐ Please send me a copy of your Materials Handling manual. Enclosed find \$1.25

Name.....

Position.....

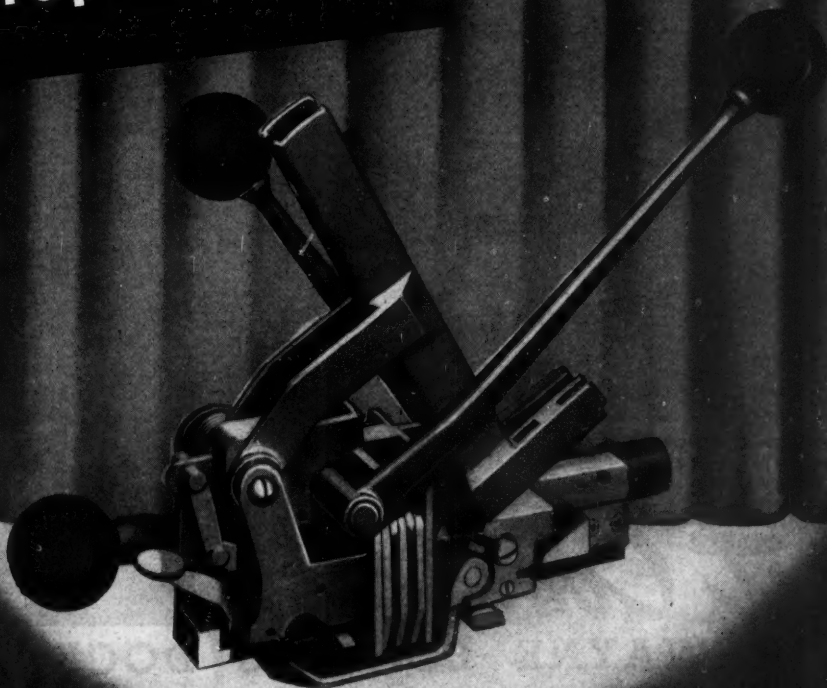
Company.....

Address.....

City..... Zone..... State.....

More Power to America
GENERAL ELECTRIC

Presenting
**THE NEW BRAINARD
 Strap-O-Matic**

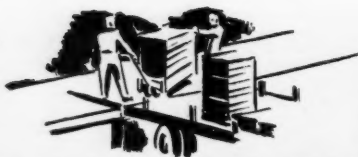


Faster—easier to use—the all-new STRAP-O-MATIC tensions, cuts and seals, all in a matter of seconds. STRAP-O-MATIC is designed by Brainard strapping specialists to do the job in three easy, natural motions. Your shipping department will enjoy the speed and ease with which it operates. You will like the extra savings in time and labor. STRAP-O-MATIC will be a feature of the National Materials Handling Exposition in Philadelphia this month. Don't miss it. It may be seen in operation at Booth 505.

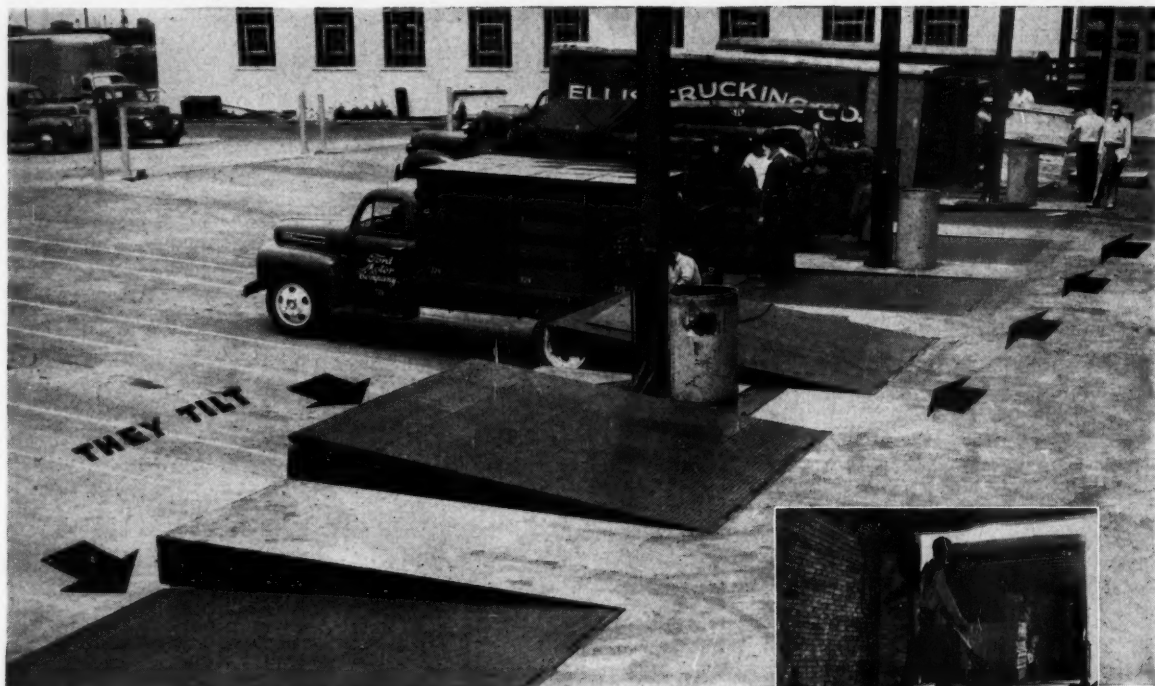


Have you your copies of
 Brainard's latest strapping catalogs?
 They are available upon request.

BRAINARD STEEL COMPANY
 WARREN, OHIO

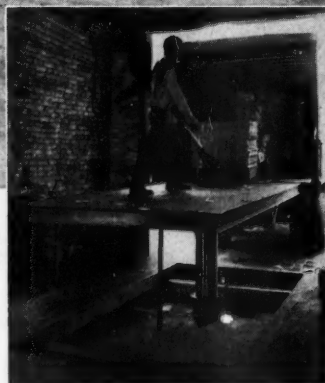


"LOADING TIME CUT IN HALF"



Tilting Loading Dock Ramps Tilt to Meet Truck Body. Operated by Hydraulic Lifts.

Standard Wayne Platform Lift Itself Becomes Loading Dock.



Cut Costs

WITH WAYNE LOADING DOCK LIFTS

YOU CAN save time and money with Wayne Hydraulic Leveling Ramps to adjust the level of the loading dock to the truck height. Material on skids can be directly transported into the truck body over a level path. A variance of as much as 20 inches in the height of truck bodies may be instantly adjusted by merely turning a valve. Users say: "Cuts loading time in half." . . "As good as doubling dock facilities."



SEND FOR ILLUSTRATED FOLDER

Use the coupon below to get all the facts on this new plan to cut costs at the loading dock. No obligation.

THE WAYNE PUMP COMPANY, FORT WAYNE 4, INDIANA
516 Tecumseh Street

Please send folder on time-saving Wayne Loading Dock Lifts and give us some idea of the cost.

NAME _____

ADDRESS _____

CITY _____

STATE _____



for your

protection

**NATIONWIDE
SERVICE**

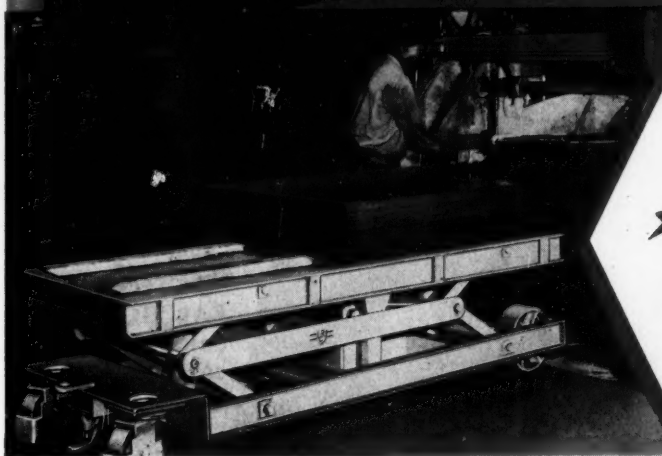
INDUSTRIAL AIR COMPRESSORS • HOSE REELS • BULK PUMPS • POWER WASHERS

When You Think of Reducing **MANUAL EFFORT and WORKER FATIGUE . . .**

think of
**LYON-Raymond
SHEET FEEDING
TABLES!**

★ Here's an example of a broad problem — **SOLVED**

No longer do many operators need to handle as much as 25 tons of sheet steel in an eight-hour day by the old back-breaking methods that always have been used.



LYON-Raymond Sheet Feeding Tables make your press or shear operator's job easier . . . safer . . . faster. How? He merely presses the foot pedal — and the heavy stack of sheets is hydraulically levelled with the press or shear feed line. Then he simply slides the top sheet into position . . . no stooping, no lifting, no tugging! Successive sheets are quickly fed in the same labor-saving manner.

In Material Handling
you've got to consider
ALL THREE branches

1. Transporting of Materials
2. Tying of Materials
3. Positioning of Materials

Now put the spotlight on No. 3!
i.e. Handling material at the machines — by positioning. You will make a lot of profitable discoveries. And in many of the problems that show up, LYON-Raymond experience can render valuable service.

Mechanized Positioning of Materials is NEW!

This *Positioning of Materials* for easier, more efficient work in production processes and assemblies, is the most startling concept of the Material Handling science with possibilities that are just beginning to unfold. By giving industry this newest advancement in reducing manual effort and worker fatigue, LYON-Raymond has again shown its leadership. The success of LYON-Raymond Sheet Feeding Tables has led straight to a fast developing line of thought . . . the right way of handling materials **AT THE MACHINE**. Here, too, LYON-Raymond ideas and solutions have been received with enthusiasm by Material Handling engineers and machine operators alike.

Positioning of Materials is too important a phase of material handling for you to overlook. Find out about LYON-Raymond Hydraulic Elevating Sheet Feeding Tables — new Bulletin 261 tells the whole story — send for it today!

Also, ask our engineers about other positioning equipment applicable to machines, to assembling, to repair jobs. Write today!



High-Lift Truck Elevating Table Lift-Truck (Skid) Lift Truck (Pallet) Sheet Feeding Tables



LYON-Raymond Corporation

Hydraulic Material Handling Equipment

734 Madison St.

Greene, N. Y.

SEE! The LYON-Raymond EXHIBIT
Booths 710 and 711 at the
NATIONAL MATERIALS HANDLING SHOW
Philadelphia, January 10th to 14th
Our engineers will be there . . . consult them on positioning
of materials in your production processes and assemblies.

FIVE-FOLD *Slyver-Clad*

● **KOROSEAL**
Perforated Retainer . . . two used . . . bottom grid frame completely insulated . . . envelopes entire plate and presses against Slyver and two glass mats.

● **MICROPOROUS RUBBER SEPARATOR**
. . . impervious to heat, electrolyte and oxidation . . . close spaced for uniform pressure against Slyver-clad plates . . . high porosity and low electrical resistance.

● **SLYVER** . . . thick layers of infinitely fine glass fibres . . . laid parallel in vertical position . . . America's BEST retention.

B EXPANSION MAT holds Slyver firmly in place . . . provides expansion space to eliminate unnecessary element strains.

● **SECOND EXPANSION MAT** completely envelopes both plate surfaces and sides . . . permits free acid circulation . . . a third insulator.



VISIT C & D
Booths 612-717

THIRD NATIONAL
MATERIALS HANDLING
EXPOSITION

Convention Hall
Philadelphia
January 10-14, 1949

C & D BATTERIES, INC.

TELEPHONE • DIESEL • ELECTRIC INDUSTRIAL TRUCK • LOCOMOTIVE • STARTING & LIGHTING
Established 1906 of Conshohocken, Pa. SALES AND SERVICE IN PRINCIPAL CITIES

WE CAN DEMAND . . .

Vast parking lots in which thousands of workers' autos are parked are nothing particularly new or exciting to the average American. We see such parking facilities next to nearly every plant all over the country. If such parking space—or at least some parking place—is not provided, the worker goes where there IS parking place provided. Nobody's going to prevent Joe American from driving his car to work. No sir, this is America.

I was particularly impressed by the hundreds of bicycles parked in lean-to sheds outside of plants in England, France and Italy. I was much impressed by the number of bicycles on the streets in those countries. On a weekend, thousands of tandem bicycles are ridden by men and their girl friends, pumping, sweating and working to get out into the country for a small holiday. They're glad to work for THEIR holiday.

Step into a phone booth. Close the door and be in a soundproof, private chamber. Call your wife or your mother or your office. Phones here are everywhere. Just drop a nickel, dial and get your number. Want to call long distance? Sure thing. Just charge it to your bill and pay it at the end of the month. You'll get your party in the distant city without even taking the receiver from your ear. Get the wrong number occasionally? Have a slight delay? By gosh, the phone company can't do that to you. You'll write to your congressman or something. No sir, you're an American. Where does the phone company get that stuff, anyhow? By golly, you'll see about and yakety, yak.

Let's make a phone call in Marseilles—or Rome—or even London. It's a production. It's an epoch. It's terrific. Want to talk to a nearby town—say 50 miles away? Two or three hours' delay. Want to make a local call? On some blocks in a big European city there might be a store with one single phone. If the storekeeper happens to feel good he'll let you use his phone. Granting that you get your number by the fifth try, you can then talk to your wife or your girl or your office, right out in the middle of the room or—as so often happens—out on the sidewalk with all the traffic honking by.

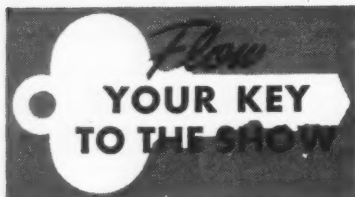
We DEMAND good telephone service, our own automobile, our own homes, our radios, electric lights, bathrooms, showers, super markets and baseball games. We have come to feel that it is the inalienable right of every American to have these and more—because he IS an American.

The French worker, the English worker, the Italian, the Belgian work longer hours, work harder and for a much lower standard of living and many fewer living comforts than we. They cannot DEMAND—they're glad if they can just get food.

We shouldn't forget that the system which built our great country and our great way of life has yet to be equalled anywhere else. The soap box orator (the one with the holes in his pants) rants and raves and tells us how things could be improved, if only we followed the system used in certain foreign countries. That has, as yet, not been demonstrated. We are fed a lot of stuff which purportedly comes from behind "the iron curtain." Actually, it is only high-sounding "stuff." No one has seen, anywhere in this world, the equal of what we have here in America. Let's continue to demand it—but protect it—and work for it.

Irving B. Hexter

Publisher.



Your Guide to

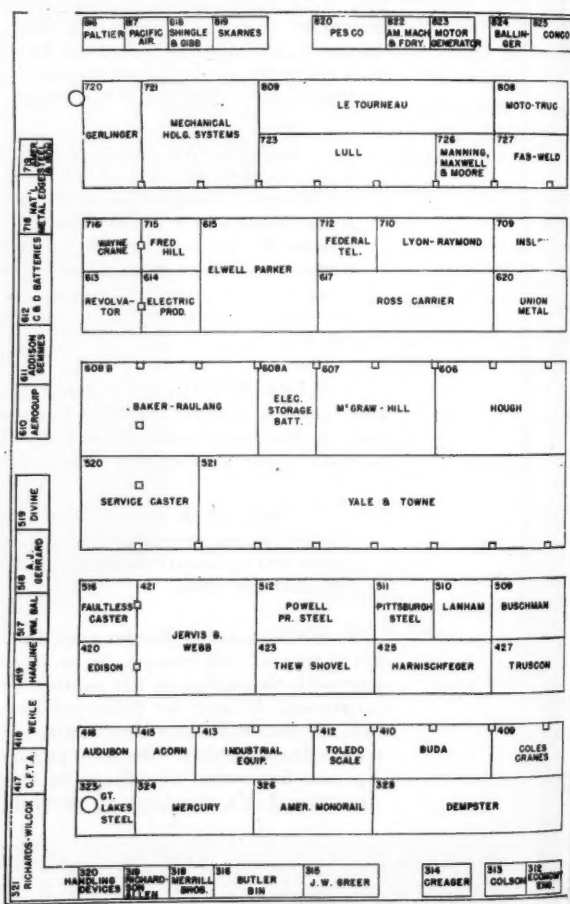
Here is a complete listing of exhibitors

EXHIBITOR SPACE NUMBER

Acme Pallet Co., Inc.	22, 23
Acme Steel Co.	705
Acorn Wire & Iron Wks.	415
Addison-Semmes Corp.	611
Aerol Co., Inc.	141
Aeroquip Corp.	610
Albion Industries, Inc.	101
Alvey Conveyor Mfg. Co.	202, 203
The Alvey Ferguson Co.	142
American Engineering Co.	109
American Machine & Foundry Co.	822
American Monorail Co.	326, 327
American Pulley Co.	403
American Society of Mechanical Engineers	132
American Steel & Iron Works	719
American Warehousemen's Assn.	123
Anthony Co.	121
Arrow Products	46
Atlantic Distributors, Inc.	44
Audubon Wire Cloth Corp.	416
Automatic Transportation Co.	524, 525, 604, 605
Automotive Rubber Co., Inc.	33
Baker Industrial Truck Div.	
Baker-Raulang Co.	608-B, 609
William Bal Corp.	517
The Ballinger Associates	824
Barber-Greene Co.	830, 831, 832, 833
Barrett-Cravens Co.	331, 408
The Bassick Co.	41, 42, 43
Bell Aircraft Corp.	129
Benbow Manufacturing Co.	17
Better Packages, Inc.	103
Bond Foundry & Machine Co.	147
Bosworth Mfg. Co.	102
Brainard Steel Co.	505
The Buda Co.	410, 411
E. W. Buschman Co.	509
Butler Bin Co.	316, 317
C & D Batteries, Inc.	612, 717
C.I.T. Corp.	804, 805-B
Caster & Floor Truck Assn.	417
Chilton Co., Inc.	1, 2
Chisholm-Moore Hoist Corp.	826, 827
City Machine Co.	405
Clark Equipment Co., Clark Tractor Div.	526, 527, 602, 603
Cleveland Wire Spring Co., Div. of Reynolds Spring Co.	145
Coffing Hoist Co.	54
Coles Cranes, Inc.	409
Colson Equipment & Supply Co.	313
Comet Manufacturing Co., Inc.	34
Conco Engineering Works	825
Ira L. Conkling Co.	51
Conover Mast Publications, Inc.	27
Conveyor Specialty Co., Inc.	802, 803
H. W. Creager Mfg. Co.	314
Crescent Truck Co.	138, 143
Darnell Corp.	15
Dempster Brothers, Inc.	328, 329, 330
Diagraph-Bradley Industries, Inc.	310
Divine Brothers Co.	519
Drake, Startzman, Sheahan, Barclay, Inc.	25
Economy Engineering Co.	312
Thos. A. Edison, Inc., Edison Storage Battery Div.	420
Electric Industrial Truck Assn.	835
Electric Products Co.	614
Electric Storage Battery Co.	608-A
Elizabeth Iron Works, Inc.	828, 829

The Elwell-Parker Electric Co.	615, 616, 713, 714
Equipment Mfg., Inc.	37, 38
Erie Enameling Co.	35
Euclid Crane & Hoist Co.	732
Fab-Weld Corp.	727
The Fairbanks Co.	105
Faultless Caster Corp.	516
Federal Telephone and Radio Corp.	712
Harry J. Ferguson Co.	136
FLOW	56, 119, 130
The Garlock Packing Co.	834
General Electric Co.	733, 734
Geneva Metal Wheel Co.	302
A. J. Gerrard & Co.	518
Getman Bros.	131
Globe Hoist Co.	216
Gould Storage Battery Corp.	728
J. W. Greer Co.	315
Handling Devices, Inc.	320
Harnischfeger Corp.	425, 426
The Harrington Co.	303
Hertner Electric Co.	224
Fred Hill & Son Co.	715

Frank G. Hough Co.	606
Hydraulic Equipment Co.	731
Hyster Co.	428, 429, 430, 506, 507, 508
Ideal Stencil Machine Co.	4, 5
Industrial Equipment Co.	413, 414
Industrial Tire & Wheel Co., Inc.	45
Industrial Washing Machine Corp.	336
Inland Wire Products Co.	311
Inslay Mfg. Corp.	709
Ironbound Box & Lumber Co.	807
Island Equipment Corp.	207
The Joyce-Cridland Co.	144
Kalamazoo Manufacturing Co.	334, 335
Kayel Products Corp.	36
Keen Manufacturing Co.	104
L&H Wood Mfg. Co.	39
The Lanham Co.	510
Lansing Co.	40
Lansing Industrial Sales Co.	21
R. B. Latch Engineering Co.	18
R. G. LeTourneau, Inc.	810, 811, 812, 809
G. B. Lewis Co.	701



Go to the Exhibits

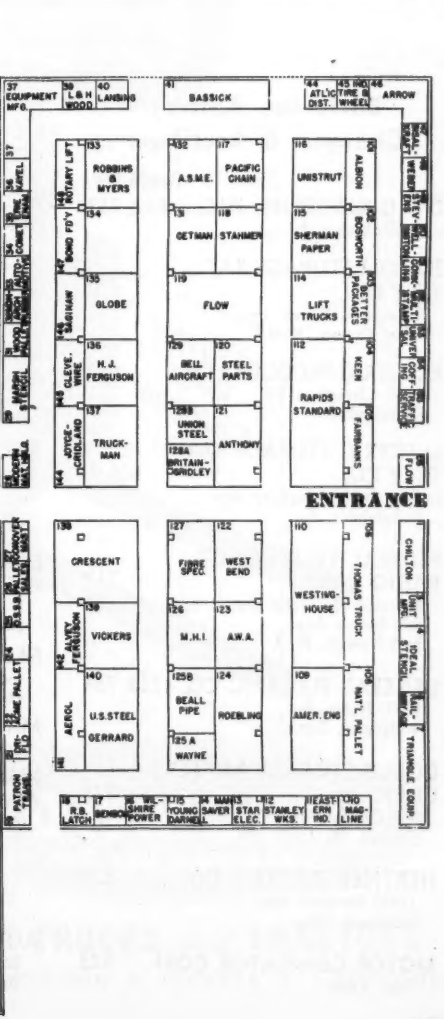
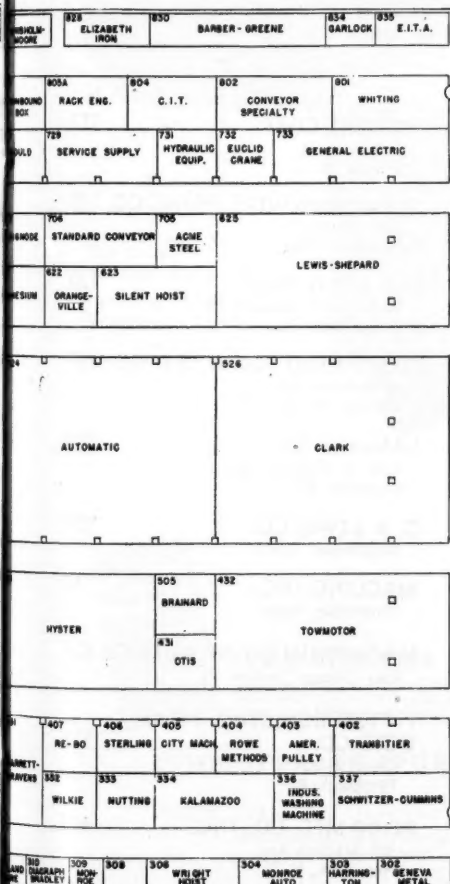
g of exhibitors and their booth numbers.

Lewis-Shepard Products, Inc. 625, 626, 627, 702, 703, 704
 Lift Trucks, Inc. 114
 Lull Manufacturing Co. 723, 724, 725
 Lyon-Raymond Corp. 710, 711
 McGraw-Hill Publishing Co. 607
 Magline, Inc. 10
 Magnesium Co. of America 621
 Manning, Maxwell and Moore 726
 Mansaver Industries, Inc. 14
 Marsh Stencil Machine Co. 29, 30
 Material Handling Institute 126
 May-Fran Engineering, Inc. 628
 Mechanical Handling Systems, Inc. 813, 814, 721, 722
 Mercury Mfg. Co. 324, 325
 Merrill Brothers 318
 Midwest Pallet Corp. 24
 Modern Industry 308
 Modern Materials Handling 28
 Monarch Rubber Co. 32
 Monroe Co., Inc. 309
 Monroe Auto Equipment Co. 304, 305
 The Moto-Flow Co. 217

Motor Generator Corp. 823
 The Moto-Truc Co. 808
 The Multistamp Co., Inc. 52
 National Metal Edge Box Co. 718
 National Pallet Corp. 108
 National Wooden Box Assn. 601
 New Britain-Gridley Machine Div., New Britain Machine Co. 128-A
 Nutting Truck & Caster Co. 333
 Orangeville Mfg. Co. 622
 Otis Elevator Co. 431
 Pacific Chain & Mfg. Co. 117
 Pallet Sales Corp. 26
 Patron Transmission Co. 19, 20
 Penton Publishing Co. 501
 Pesco Products Co. 820, 821
 Pittsburgh Steel Products Co. 511
 Powell Pressed Steel Co. 512, 513
 Rack Engineering Co. 805-A, 806
 Railway Age 6
 Rapids-Standard Co., Inc. 112, 113
 The Ready-Power Co. 435
 Re-Bo Mfg. Co., Inc. 407
 Revolver Co. 613
 Richardson Allen Corp. 319

Richards-Wilcox Mfg. Co. 321, 322
 Robbins & Myers, Inc. 133
 John A. Roebeling Sons Co. 124
 Ross Carrier Co. 617, 618, 619
 Rotary Lift Co. 148
 David Round & Son 215
 Rowe Methods Inc. 404
 Ruger Equipment Co., Inc. 301
 Saginaw Products Corp. 146
 Schwitzer-Cummins Co. 337
 Sermat Conveyor Corp. 401
 Service Caster & Truck Corp. 520
 Service Supply Corp. 729, 730
 Sherman Paper Products Corp. 115
 Shingle & Gibb Co. 818
 Signode Steel Strapping Co. 708
 Silent Hoist & Crane Co., Inc. 623, 624
 The Sisalkraft Co. 47
 Skarnes Engineering & Supply Inc. 819
 R. M. Sloan Equipment Co. 11
 Speedways Conveyors, Inc. 201
 Stahmer Supply Co. 118
 Standard Conveyor Co. 706, 707

BO
CONGO
O-TRUC
B-WELD
SL
UNION
ETAL
HMAN
YSCON
LES
JAMES
SIS
ECONOMY
EQU



The Stanley Works	12
Star Electric Motor Co.	13
Steel Engineering Products, Ltd. .	409
Steel Parts Mfg. Co.	120
Sterling Bolt Co.	406
Stevens Appliance Truck Co.	49

Thermoid Co.	528
Thew Shovel Co.	423, 424
Thomas Truck & Caster Co.	106, 107
Toledo Scale Co.	412
Towmotor Corp.	432, 433, 434, 502, 503, 504
Tract-R-Lift Corp.	735
Traffic Service Corp.	55
Transitler Sales Corp.	402
Triangle Equipment Co.	7, 8, 9
Truck-Man, Inc.	137
Truscon Steel Co.	427
Union Metal Mfg. Co.	620
Union Steel Products Co.	128-B
Unistrut Products Co.	116
Unit Crane & Shovel Corp.	213, 214
Unit Manufacturing Co.	3
United States Steel Corp.	140
Universal Four-Way Pallet Co.	53

Wayne Crane Div., American	
Steel Dredge Co., Inc.	720
Jervis B. Webb Co.	421, 422, 514, 515
Weber Addressing Machine Co.	48
Wehle Conveyor Co.	418
Weishor Corp.	815
Wellington Machine Co.	50
West Bend Equipment Corp.	122
Westinghouse Electric Corp.	110, 111
Whiting Corp.	801
The Wilkie Co.	332
Wilshire Power Sweeper Co.	136
Wirebound Box Manufacturers	
Assn.	223
Wood Pallet Co., Inc.	31
Wright Hoist Div., American	
Chain & Cable Co.	306, 307
Yale & Towne Mfg. Co.	521, 522, 523
Paul O. Young Co.	15

Exhibitors - - By Products

You can quickly locate all the exhibitors in a product classification by consulting this alphabetical guide. Manufacturers making several types of products are listed in each group. This list will save you time.

Batteries, Battery Chargers & Rectifiers

Batteries, Battery Chargers & Rectifiers	
	Booth No.
C & D BATTERIES, INC. Conshohocken, Pa.	612, 717
EDISON STORAGE BATTERY DIV., Thomas A. Edison, Inc. West Orange, N. J.	420
ELECTRIC PRODUCTS CO. 1725 Clarkstone Rd. Cleveland, O.	614
ELECTRIC STORAGE BATTERY CO. 19th St. & Allegheny Ave. Philadelphia, Pa.	608-A
FEDERAL TELEPHONE & RADIO CORP. Selenium & Intelin Div., 900 Passaic Ave. East Newark, N. J.	712
GENERAL ELECTRIC CO. 1285 Boston Ave., Bridgeport, Conn.	733, 734
GOULD STORAGE BATTERY CORP. 467 Calhoun St. Trenton, N. J.	728
HERTNER ELECTRIC CO. 12690 Elmwood Ave. Cleveland, Ohio	224
MOTOR GENERATOR CORP. Troy, Ohio	823

Booth No.

RICHARDSON-ALLEN CORP. 319
15 West 20th St.
New York, N. Y.

**WESTINGHOUSE ELECTRIC
CORP.** 110, 111
150 Pacific Ave.
Jersey City, N. J.

Belting

AUDUBON WIRE CLOTH CORP.	416
Richman St. & Castor Ave. Philadelphia, Pa.	
THERMOID CO.	528
Trenton, N. J.	

Bridge Ramps

ELIZABETH IRON WORKS, INC.	828, 829
P. O. Box 360 Elizabeth B. N. J.	
FAB-WELD CORP.	727
Richmond & Pickwick Sts. Philadelphia, Pa.	
MAGLINE, INC.	10
Pinconning, Mich.	
MAGNESIUM CO. OF AMERICA	621
East Chicago, Indiana	

Carriers, Process and Special Work

AUTOMOTIVE RUBBER CO. 33
8603 Epworth Blvd.
Detroit, Mich.

Booth No.

WM. BAL CORP.	517
2 Johnson St. Newark, N. J.	
CLEVELAND WIRE SPRING CO. 145	
2012 W. 25 St. Cleveland, Ohio	
FAB-WELD CORP.	727
Richmond & Pickwick Sts. Philadelphia, Pa.	
IRONBOUND BOX & LBR. CO. 807	
46 Hoffman Place Hillside, N. J.	
LANHAM CO.	510
12th & Magnolia Sts. Louisville, Ky.	
G. B. LEWIS CO.	701
Watertown, Wisc.	
MAGLINE, INC.	10
Pinconning, Mich.	
MAGNESIUM CO. OF AMERICA 621	
East Chicago, Indiana	
PITTSBURGH STEEL PROD- UCTS CO.	511
Grant Bldg. Pittsburgh, Pa.	
RE-BO MFG. CO., INC.	407
331 Madison Ave. New York, N. Y.	
SKARNES ENG. & SUPPLY, INC.	819
2428 Riverside Minneapolis, Minn.	

Is Your Product Priced to Sell?

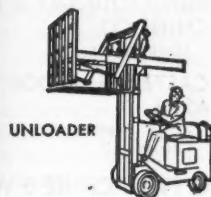
Slash Production Costs With TOWMOTOR

MH*

Cut 20% to 30% from present production costs with Towmotor Mass Handling. Rushing raw materials to production lines—speeding finished products to shipping—stacking full loads into overhead storage space—Towmotor is the busiest piece of equipment you'll ever own! Gasoline-powered Towmotor Fork Lift Trucks lift, transport and stack full loads any time, anywhere—operate at maximum capacity 24 hours a day, every day. Towmotor handling keeps pace with production. Take a tip from the men who make handling pay a profit: More professional handlers use Towmotor than any other fork lift truck.

★ M H is MASS HANDLING — the systematic movement of the most units, in the shortest time, at the lowest cost.

Double and triple savings with standard Towmotor Accessories. However, if a standard Towmotor unit does not solve your handling problem, Towmotor engineers welcome the opportunity to design special equipment to meet your specific needs. Details are available without obligation.



"See our exhibit, Third National Materials Handling Exposition, Philadelphia, January 10-14, Booth Nos. 432-3-4, 502-3-4."



SEND FOR FREE BOOK!

Towmotor Materials Handling Analysis Guide shows you how to recognize, analyze and solve your handling problems. Send for a free copy.

TOWMOTOR CORPORATION

DIVISION 8

1226 E. 152nd St., Cleveland 10, Ohio

Representatives in all Principal Cities in U. S. and Canada



TOWMOTOR

THE ONE-MAN-GANG

FORK LIFT TRUCKS and TRACTORS

RECEIVING • PROCESSING • STORAGE • DISTRIBUTION

Booth No.
THOMAS TRUCK & CASTER CO. 106, 107
 Keokuk, Ill.
UNION METAL MFG. CO. 620
 1432 Maple Ave., N.E.
 Canton, Ohio
PAUL O. YOUNG CO. 15
 7th & Chilterham Ave.
 Philadelphia, Pa.

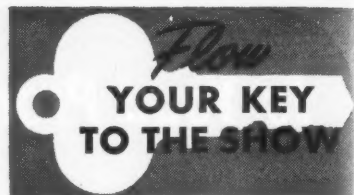
Casters, Wheels and Industrial Tires

AEROL CO. 141
 1823 E. Washington Blvd.
 Los Angeles, Calif.
ALBION INDUSTRIES, INC. 101
 Albion, Mich.
BASSICK CO. 41, 42, 43
 Railroad & Howard Ave.
 Bridgeport, Conn.
BOND FOUNDRY & MACHINE CO. 147
 Manheim, Pa.
CASTER & FLOOR TRUCK ASSN. 417
 22 W. Monroe St.
 Chicago, Ill.
CITY MACHINE & WHEEL CO. 405
 1095 Home Ave.
 Akron, Ohio
DARNELL CORP. 15
 60 Walker St.
 New York, N. Y.
DIVINE BROS. CO. 519
 200 Seward Ave.
 Utica, N. Y.
FAIRBANKS CO. 105
 393 Lafayette St.
 New York, N. Y.
FAULTLESS CASTER CORP. 516
 Evansville, Ind.
GENEVA METAL WHEEL CO. 302
 Geneva, Ohio
INDUSTRIAL TIRE & WHEEL CO. 45
 109 E. Calhoun St.
 Memphis, Tenn.
KAYEL PRODUCTS CORP. 36
 216-20 Murphy Bldg.
 Detroit, Mich.
MONARCH RUBBER CO. 32
 Hartsville, Ohio
NUTTING TRUCK & CASTER CO. 333
 1125 W. Division St.
 Faribault, Minn.
SAGINAW PRODUCTS CO. 146
 68 Williamson
 Saginaw, Mich.
SERVICE CASTER & TRUCK CORP. 520
 Albion, Mich.

Booth No.
THOMAS TRUCK & CASTER CO. 106, 107
 Keokuk, Iowa
WELLINGTON MACHINE CO. 51
 133 De Wolf St.
 Wellington, Ohio

Conveyors and Accessories

ALVEY CONVEYOR MFG. CO. 202, 203
 St. Louis, Mo.
ALVEY FERGUSON CO. 142
 Oakley Station
 433 Disney St.
 Cincinnati, Ohio
ARROW PRODUCTS, INC. 46
 343 Indiana Ave., N.W.
 Grand Rapids, Mich.
BARBER-GREENE CO. 830, 831, 832, 833
 631 W. Park Avenue
 Aurora, Ill.
E. W. BUSCHMAN CO., INC. 509
 Clifton & Spring Grove Aves.
 Cincinnati, Ohio
CONVEYOR SPECIALTY CO., INC. 802, 803
 33 Newport Ave.
 North Quincy, Mass.
H. W. CREAGER MFG. CO. 314
 Arvada, Colo.
ERIE ENAMELING CO. 35
 Erie, Pa.
HARRY J. FERGUSON CO. 136
 115 West Ave.
 Jenkintown, Pa.
J. W. GREER CO. 315
 119-137 Windsor St.
 Cambridge, Mass.
ISLAND EQUIPMENT CORP. 207
 27-01 Bridge Plaza North
 Long Island City, N. Y.
MAY-FRAN ENGINEERING, INC. 628
 1710 Clarkstone Rd.
 Cleveland, Ohio
MECHANICAL HANDLING SYSTEMS, INC. 721, 722, 813, 814
 4600 Nancy Ave.
 Detroit, Mich.
PATRON TRANSMISSION CO., INC. 19, 20
 129 Grand St.
 New York, N. Y.
RACK ENGINEERING CO. 805-A, 806
 925 Liberty Ave.
 Pittsburgh, Pa.
RAPIDS-STANDARD CO., INC. 112, 113
 43 Grandville Ave., S.W.
 Grand Rapids, Mich.



Booth No.
RICHARDS-WILCOX MFG. CO. 321, 322
 Aurora, Ill.
SAGINAW PRODUCTS CORP. 148
 68 Williamson
 Saginaw, Mich.
SERMAT CONVEYOR CORP. 401
 2350 West 58 Street
 Chicago, Ill.
SHINGLE & GIBB CO. 818
 Philadelphia, Pa.
SPEEDWAYS, CONVEYORS, INC. 201
 1261 Niagara St.
 Buffalo, N. Y.
STAHMER SUPPLY CO. 118
 135 South La Salle St.
 Chicago, Ill.
STANDARD CONVEYOR CO. 706, 707
 North St. Paul, Minn.
STEEL-PARTS MFG. CO. 120
 Div. of Blackstone Mfg. Co., Inc.
 4630 W. Harrison St.
 Chicago, Ill.
TRIANGLE EQUIPMENT CO., INC. 7, 8, 9
 45 River Rd.
 Nutley, N. J.
UNITED STATES STEEL CORP. 140
 71 Broadway
 New York, N. Y.
JERVIS B. WEBB CO. 421, 422, 514, 515
 8951 Alpine Ave.
 Detroit, Mich.
WEHLE CONVEYOR CO. 418
 201-203 Water St.
 Binghamton, N. Y.
THE WILKIE CO. 323
 5520 Arch St.
 Philadelphia, Pa.

Cranes—Bridge & Mounted Types and Accessories

AMERICAN MONORAIL CO. 326, 327
 13107 Athens Ave.
 Cleveland, Ohio
AMERICAN STEEL DREDGE CO., INC. 720
 Wayne Crane Division
 2511 West Taylor Ave.
 Fort Wayne, Ind.

Sure, America's going ahead . . . if we all pull together!

Let's compare *yesterday* with *today* . . . that will give us an idea of what tomorrow can be!

Machine Power: Since 1910 we have increased our supply of machine power $4\frac{1}{2}$ times.

Production: Since 1910 we have more than *doubled* the output each of us produces for every hour we work.

Income: Since 1910 we have increased our annual income from less than \$2400 per household to about \$4000 (in dollars of the same purchasing power.)

Work Hours: Yet, since 1910 we have cut 18 hours from our average workweek—equivalent to two present average work-days.

HOW have we succeeded in achieving all this? Through the American kind of

teamwork! And what is *teamwork*?

American teamwork is management that pays reasonable wages and takes fair profits—that provides the best machines, tools, materials and working conditions it possibly can—that seeks new methods, new markets, new ideas; that bargains freely and fairly with its employees.

Our teamwork is labor that produces as efficiently and as much as it can—that realizes its standard of living ultimately depends upon how much America produces—that expects better wages as it helps increase that production.

Teamwork is simply working together to turn out more goods in fewer man-hours—making things at lower costs and paying higher wages to the people who make them and selling them at lower prices to the people who use them.

What we've already accomplished is just a foretaste of what we *can* do. It's just a start toward a goal we are all striving to reach: better housing, clothing, food, health, education, with ever greater opportunities for individual development. Sure, our American System has its faults. We all know that. We still have sharp ups and downs in prices and jobs. We'll have to change that—and we will!

It will continue to take *teamwork*, but if we work together, there's no limit on what we can all *share together* of even greater things.



What we have already accomplished is just a foretaste of what we can do—if we continue to work together!

WANT TO HELP?

This is the first of a series of advertisements in The Advertising Council's Economic education campaign. This important program can be effective only through the strong support of advertisers everywhere. For information about the succeeding ads write to: The Advertising Council, Inc., Dept. A, 11 West 42nd St., New York 18, N. Y.

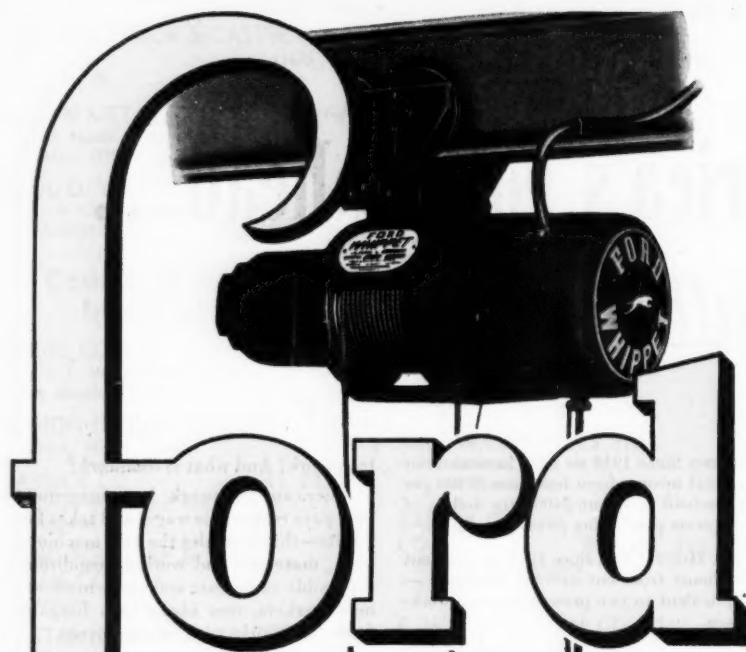
Approved for the PUBLIC POLICY COMMITTEE of The Advertising Council by:

EVANS CLARK
Executive Director
Twentieth Century Fund

BORIS SHISHKIN
Economist
American Federation of Labor

PAUL G. HOFFMAN
Formerly President
Studebaker Corp.

CONTRIBUTED AS A PUBLIC SERVICE BY THIS PUBLICATION



**"WHIPPET"
ELECTRIC HOIST**

The fast, smooth-running, safe, dependable hoist—in capacities from 250 to 2000 pounds—available with parallel or cross-mounted trolley, lug or hook suspension.

ALSO...

... a line of high quality Chain Blocks, Hoists and Trolleys.

FOR INFORMATION about Ford materials handling equipment, get in touch with the Ford Hoist distributor nearest you. Or, if you prefer, write us at York, Pennsylvania.



ACCO

York, Pa., Chicago, Denver, Los Angeles, Philadelphia, Portland, San Francisco, Bridgeport, Conn.

**FORD CHAIN BLOCK DIVISION
AMERICAN CHAIN & CABLE**

TRADE
MARK

In Business for Your Safety

YOUR KEY
TO THE
FUTURE

Booth No.

**BAKER-INDUSTRIAL TRUCK
DIV.,**
BAKER-RAULANG CO. 608-B, 609
2168 W. 25th St.
Cleveland, Ohio

BENBOW MFG. CO. 17
P. O. Box 589
Redwood City, Calif.

COLES CRANES, INC. 409
4312 South Paulina St.
Chicago, Ill.

**CONCO ENGINEERING
WORKS** 825
Mendota, Ill.

**ELWELL-PARKER
ELECTRIC CO.** 615, 616, 713, 714
4205 St. Clair Ave.
Cleveland, Ohio

EUCLID CRANE & HOIST CO. 732
Euclid, Ohio

HARNISCHFEGER CORP. 425, 426
Milwaukee, Wisc.

HARRINGTON CO. 303
1642 W. Callow Hill St.
Philadelphia, Pa.

HYSTER CO.
428, 429, 430, 506, 507, 508
Portland, Oregon

**INDUSTRIAL EQUIPMENT
CO.** 413, 414
Chicago, Ill.

INSLEY MFG. CO. 709
801 N. Olney St.
Indianapolis, Ind.

**R. G. LeTOURNEAU,
INC.** 809, 810, 811, 812
Longview, Texas

**MANNING, MAXWELL &
MOORE, INC.** 726
Shaw-Box Crane & Hoist Div.
Muskegon, Mich.

RUGER EQUIPMENT CO., INC. 301
2425 St. Clair Ave.
Cleveland, Ohio

**SILENT HOIST & CRANE
CO.** 623, 624
Brooklyn, N. Y.

THEW SHOVEL CO. 423, 424
1374 East 28 St.
Lorain, Ohio

**UNIT CRANE & SHOVEL
CORP.** 213, 214
6411 W. Burnham St.
Milwaukee, Wisc.

WEISHOR CORP. Booth No. 815
1028 N. Seventh St.
Milwaukee, Wisc.

WHITING CORP. 809
Harvey, Ill.

WRIGHT MFG. DIV. 306, 307
American Chain & Cable Co.
York, Pa.

Elevators—Portable & Fixed

AMERICAN MACHINE & FOUNDRY CO. 822
Lowerator Div.,
485 Fifth Ave.
New York, N. Y.

ANTHONY CO. 121
Streator, Ill.

BARRETT-CRAVENS CO. 331, 408
4613 S. Western Ave.
Chicago, Ill.

BOSWORTH MFG. CO. 102
6723 Denison Ave.
Cleveland, Ohio

BUDA CO. 410, 411
Harvey, Ill.

COLSON EQUIPMENT & SUPPLY CO. 313
1317 Willow St.
Los Angeles, Calif.

ECONOMY ENGINEERING CO. 312
2677 W. Van Buren St.
Chicago, Ill.

GLOBE HOIST CO. 216
1000 E. Mermaid Lane
Philadelphia, Pa.

R. B. LATCH ENGINEERING CO. 18
Milmont Park, Pa.

LEWIS-SHEPARD PRODUCTS, INC. 625, 626, 627, 702, 703, 704
125 Walnut St.
Watertown, Mass.

MOTO-FLOW CO. 217
23rd & Water Sts.
Bay City, Mich.

OTIS ELEVATOR CO. 431
260 Eleventh Ave.
New York, N. Y.

ROTARY LIFT CO. 148
Memphis, Tenn.

ROWE METHODS, INC. 404
1743 E. 25 St.
Cleveland, Ohio

SCHWITZER-CUMMINS CO. 337
1145 E. 22nd St.
Indianapolis, Ind.

SHINGLE & GIBB CO. 818
Philadelphia, Pa.

TRIANGLE EQUIPMENT CO., INC. 7, 8, 9
45 River Rd.
Nutley, N. J.

WEST BEND EQUIPMENT CORP. Booth No. 122
West Bend, Wisc.

Fittings & Couplings

AEROQUIP CORP. 610
300 South East Ave.
Jackson, Mich.

FAIRBANKS CO. 105
393 Lafayette St.
New York, N. Y.

STERLING BOLT CO. 406
209 W. Jackson Blvd.
Chicago, Ill.

Floor Maintenance: Resurfacing Materials, Sweepers, Scrapers, etc.

HANDLING DEVICES CO., INC. 320
581 Boylston St.
Boston, Mass.

MONROE CO., INC. 309
10703 Quebec Ave.
Cleveland, Ohio

WILSHIRE POWER SWEEPER CO. 16
4615 Alger St.
Los Angeles, Calif.

Grabs & Slings

CHISHOLM-MOORE HOIST CORP. 826, 827
Fremont Ave.
Tonawanda, N. Y.

MANSAYER INDUSTRIES 14
310 East St.
New Haven, Conn.

MERRILL BROS. 318
56-02 Arnold Ave.
Maspeth, N. Y.

JOHN A. ROEBLING'S SONS CO. 124
Trenton, N. J.

Hoists

AMERICAN ENGINEERING CO. 109
Philadelphia, Pa.

CHISHOLM-MOORE HOIST CORP. 826, 827
Fremont Ave.
Tonawanda, N. Y.

COFFING HOIST CO. 54
Danville, Ill.

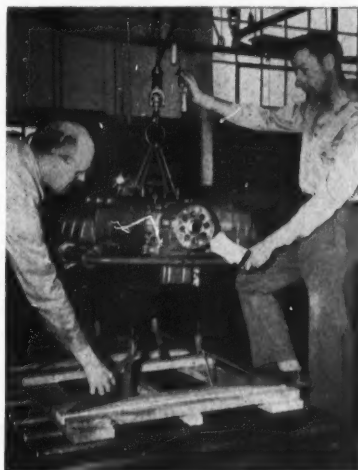
CONCO ENGINEERING WORKS 825
Mendota, Ill.

EUCLID CRANE & HOIST CO. 732
Euclid, Ohio

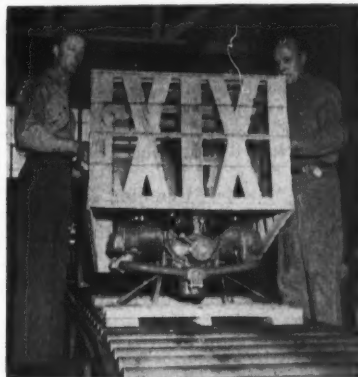
GLOBE HOIST CO. 216
1000 East Mermaid Lane
Philadelphia, Pa.

(Turn to page 117)

ENGINE FLOAT—The need for a low-cost and light-weight shipping container, one able to absorb shocks and



Jars, has been answered by Aircooled Motors, Inc., Syracuse, N. Y. To insure the safe shipment of the company's airplane engines, a cradle device was devised which holds the engine so that it literally "floats" during transit. The engine rests on the metal supports



shown, which are in turn attached to the base of a wirebound crate and firmly bolted to the engine itself. Note that the packing is done on gravity roller line. The top of the crate is lowered over the engine and the entire case is then nailed. The crate is sufficiently strong to allow stacking four high.

REDUCE YOUR COSTS
NATIONAL
MATERIALS HANDLING SHOW
★ PHILADELPHIA JAN. 10-14, 1949 ★

Program — Conference on Material Handling

Speakers, Chairmen, Committeemen

3rd Material Handling Exposition — Convention Hall

MONDAY, JANUARY 10

Opening Session

BERNARD LESTER, Sales Consultant, New York City, Program Committee Chairman, ASME Materials Handling Division, Chairman

Message of Welcome

Curtis H. Barker, Sales Manager, Pallet Loader Division, Lamson Corp., Syracuse, N.Y., and General Chairman of the Conference.

"Outlook for the Industry"

Dr. Charles F. Roos, President, The Econometric Institute, Inc., New York.

"Opportunities for Sales Engineering"

Ezra W. Clark, Business Counsellor, Consultant on Material Handling Methods, Battle Creek, Michigan.

"The User Talks to the Sales Engineer"

T. O. English, Assistant General Purchasing Agent, Aluminum Co. of America, Pittsburgh.

TUESDAY, JANUARY 11

Morning Session

"OPPORTUNITIES FOR MANAGEMENT"

CURTIS H. BARKER, JR., chairman

"The Importance of Material Handling"

Keynote Address by Mr. Barker

"The Economics of Material Handling"

Stevens H. Hammond, President, the Whiting Corp., Harvey, Ill.

"The Material Handling Engineer"—His qualifications, functions, his relation to management.

T. L. Carter, Material Handling Engineer, American Cyanamid Co., New York

Afternoon Session

"IMPROVEMENTS IN METHODS"

H. B. MAYNARD, President, Methods Engineering Council, Pittsburgh; Member, Executive Committee ASME Management Division, Chairman

"Modern Methods Engineering and Material Handling"

Opening remarks by the Chairman

"Work-Simplification in Material Handling"

Allan H. Mogensen, New York

"Opportunities for Distribution Economics"—Industry's recommendations to common carriers.

For Industry: **Neil Loney**, Industrial Consultant, Detroit
For the Railroads: **Fred Carpi**, Vice President, Traffic, Pennsylvania Railroad, Philadelphia

For the Highway Carriers: **W. F. White**, Engineer, Great Southern Trucking Company, Jacksonville, Fla.

The National Point of View: **J. W. Milliken**, Associate Editor, "Railway Age," New York

WEDNESDAY, JANUARY 12

Morning Session

"CASE STUDIES IN MODERN MATERIAL HANDLING"

J. B. MCGINN, Division Engineer, Material Handling, American Viscose Corp., Philadelphia, President, Material Handling Society of Philadelphia, Chairman

"Efficient Coordination of Material Handling Equipment in a Manufacturing Plant"

C. M. Harris, Production Manager, Electrolux Corp., Old Greenwich, Conn.

"Applications of Methods Engineering and Equipment Design"

Donald E. Farr, Engineering Supervisor, Methods Engineering Council, Pittsburgh

"Ups and Downs of Handling in Multi-Story Warehouses"

D. O. Haynes, Vice President, Merchants Refrigerating Co., New York



S. W. Gibb



C. H. Barker



W. R. Mullee



H. A. Carter



L. C. Backart



T. O. English



C. F. Roos



H. B. Maynard



D. E. Farr



J. D. Sheahan



J. C. Erickson



J. B. Webb



W. J. Dernberger



J. B. Thurston



L. W. Shea



J. W. H. Conklin



L. J. Kline



J. F. Thomas

Afternoon Session

PANEL DISCUSSION

H. E. BLANK, Managing Editor, "Modern Industry,"
New York, Chairman

"Industrial Relations": (speaker to be announced)

"Cost Control"

Emil Gibian, Chief Industrial Engineer, Thompson Products, Inc., Cleveland

"Lighting"

Arthur A. Brainerd, Illuminating Engineer, Market Studies and Applications Divisions, Philadelphia Electric Co., Philadelphia

"Building Construction": (speaker to be announced)

"Safety"

D. M. Rush, Manager of Central Planning Department, Ansco Division, General Aniline & Film Corp., Binghamton, N.Y.

Evening Session

BANQUET

THURSDAY, JANUARY 13

Morning Session

"ADVANCES IN TECHNIQUE"

JERVIS B. WEBB, President, Jervis B. Webb Co., Detroit,
Chairman

"Automatic Pallet Loading"

M. Landon, Engineering Department, Sun Oil Co., Philadelphia

"Equipment, Layout, Operation Processing"—solving the material handling application problem

W. J. Dernberger, Superintendent, Material Handling Engineering, Ford Motor Co., Dearborn, Mich.

"Developments in Bulk Handling"

E. A. Wendell, Sales Manager, Link-Belt Co., Chicago



W. C. Stuebing



C. M. Varga



J. K. Loudon



H. C. Keller



N. L. Davis



B. Lester



E. H. MacNiece

Afternoon Session

EQUIPMENT SYMPOSIUM—Recent advances in material handling equipment.

J. D. SHEAHAN, Secretary and Treasurer, Drake, Startzman, Sheahan, Barclay, Inc., New York, Chairman

"Developments in Conveyor Design and Application"

Association participating: Conveyor Equipment Manufacturers Association, Washington, D.C.

Speaker: R. C. Sollenberger, Executive Secretary of the Association

"Developments in Crane, Hoist, and Elevator Design and Application"

Association participating: Overhead Traveling Crane Institute, New York

Speakers: A. R. Walkeley, General Sales Manager, Shaw-Box Crane and Hoist Division, Manning, Maxwell & Moore Inc., Muskegon, Michigan

F. M. Blum, Sales Manager, Overhead Traveling Division, Harnischfeger Corp., Milwaukee

"Developments in Industrial Truck Design and Application"

Association participating: Electric Industrial Truck Association, Long Island City, N.Y., together with leading manufacturers of gas trucks

Speakers: Robert Pratt, Chief Industrial Engineer, General Foods Corp., New York

Lee C. Daniels, Chief Engineer, Towmotor Corp., Cleveland

J. C. Erickson, Chief Engineer, The Elwell-Parker Electric Co., Cleveland

"Developments in Marking and Stenciling"

Speaker: H. W. Hempel, Vice President, Marsh Stencil Machine Co., Belleville, Ill.

FRIDAY, JANUARY 14

Morning Session

"MATERIAL HANDLING OF TOMORROW"

JOHN B. THURSTON, Wallace Clark & Co., New York,
Chairman

"The Biggest Handling Job in the World"

Colonel James Glore, Transportation Corps Board, New York Board of Embarkation, Brooklyn, N.Y.

"Tomorrow in Air Handling"

Parkman Sayward, General Sales Manager, Slick Airways, Inc., San Antonio, Texas

"Lessons from the Berlin Airlift"

(Speaker to be provided by the United States Air Force)

They Will Meet You

Given in this alphabetical listing of companies are the names of the personnel who will be in attendance—another FLOW Magazine feature designed for your convenience in locating the men you want to see.



ACME PALLET CO., INC. BOOTH NO. 22, 23
Alfred R. Glassman, vice president and chief of engineering; Joseph Kanrich, general manager; Gilbert Robinson, engineer.

ACME STEEL CO. BOOTH NO. 705
J. E. Ott, vice president consumer products; J. G. Bucuss, manager, strapping division; C. J. Bruneel, Philadelphia



C. J. Bruneel



J. G. Bucuss

district manager; J. W. Karstens, assistant manager strapping division; E. C. Evans, assistant manager strapping division; H. W. Croop, N. J. Lynch, H. E. McGrath, M. G. McGuinn, J. E. Tyler and T. A. Kennedy, sales representatives.

ACORN WIRE & IRON WORKS BOOTH NO. 415
Richard Stitt, sales manager; Roy Miller, divisional sales director; John B. Johnson, divisional sales director.

ADDISON SEMMES CORP. BOOTH NO. 611



R. E. Frase

J. S. Addison, president; D. R. Semmes, vice president; R. E. Frase, sales manager; N. E. Mandernack; B. C. Nelson, W. T. Donahue and N. H. Petersen.

AEROL CO., INC. BOOTH NO. 141
Frank Gaines.

AEROQUIP CORP. BOOTH NO. 610
L. J. Henderson, general sales manager; M. W. Brandau, industrial sales manager; L. S. Haynes, Jr., sales engineer; J. H. Reisner, sales engineer.

ALBION INDUSTRIES, INC. BOOTH NO. 101
Paul H. Sleeper, president; Stephen E. Janus, sales manager; H. S. Mooney,



S. E. Janus



P. H. Sleeper

James Martin, Gerry Golden, Bernie MacCallum, Donald Trine and E. Deane Harrington, salesmen.

ALVEY CONVEYOR MFG. CO. BOOTH NO. 202 AND 203



P. A. Schaeffer

F. W. Nollman, Wm. Jaenicke, Richard E. Anderson, Herbert Jenkins, C. R. Alvey, Philip A. Schaefer, James Etter, Robert H. Mayer, W. E. Sparling, Russell Tedman, M. Coker, N. W. Keener, E. Felber, L. W. Acker and Harold Block.

ALVEY FERGUSON CO. BOOTH NO. 142
R. J. Blatt, C. J. Becker, A. W. Dixon, sales engineers.

AMERICAN ENGINEERING CO. BOOTH NO. 109
John C. Mevius, sales manager mate-



J. C. Mevius



C. A. Boacker

rial handling division; Conrad A. Boecker, materials handling division engineer; David W. Herbert and Jack L. Taylor.

AMERICAN MACHINE AND FOUNDRY CO. LOWERATOR DIV. BOOTH NO. 822
A. Fava, sales manager; J. O'Donnell, salesman.

AMERICAN MONORAIL CO. BOOTH NO. 326, 327

J. P. Lawrence, president; C. de V. Miller, vice president & sales manager; E. H. Doerger, advertising manager; W. P. Conway, district manager, Philadelphia; G. H. Gerding, sales engineer; Jack Abbott, sales engineer; Richard F. Robie, representative from Bellamy-Robie, Inc., Boston; A. Gordon Davis and Winthrop Davis, representatives from Production Equipment Co., Meriden, Conn.; Elbert Lively, John Stevens, George Coombe, George Chudyk, and John Greulich, representatives from Elbert Lively & Co., Newark; H. B. Brown and R. G. Berlinghof, representatives from H. B. Brown Co., Baltimore; R. P. Mahaffey, Robert Mahaffey and L. H. Hurst, representatives from R. P. Mahaffey & Co., Pittsburgh.

AMERICAN PULLEY CO. BOOTH NO. 403
E. Durlacher, manager materials handling division; L. M. Cowperthwait, R. D. Sheppard, sales representatives.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS BOOTH NO. 132
Miss E. M. Murayres, publication-sales manager; O. B. Schier, II, meetings manager.

AMERICAN STEEL AND IRON WORKS, DIVISION OF A. F. ANDERSON IRON WORKS BOOTH NO. 719



Walter H. Krueger, general manager.

W. H. Krueger

AMERICAN WAREHOUSEMEN'S ASSN. BOOTH NO. 123

Frank E. Kearney.

ANTHONY CO. BOOTH NO. 121
Frank J. Novotney, E. E. Bellows, J. G. Reinhard, H. E. Campbell.

ARROW PRODUCTS, INC. BOOTH NO. 46
B. Woldring, president and general manager.

ATLANTIC DISTRIBUTORS, INC. BOOTH NO. 44
T. W. LeBrun, president; Patrick D. Sharkey, general sales manager.

AUDUBON WIRE CLOTH CORP. BOOTH NO. 416
John D. Heins, Philadelphia representative; Otto C. Scherfel, superintendent; James G. McGinnis, engineer; R. J.

Use the handy listing and map of exhibitors to aid you while you're at the show. See pages 26, 28 and 36.



Guba, general manager; L. W. Jones, Jr., vice president.

AUTOMATIC TRANSPORTATION CO.
BOOTH NO. 524, 525, 604, 605
R. M. Whitney, sales promotion manager; E. F. Twyman, general manager; P. K. Tremewen, production manager; John Baldinger, assistant general manager.

AUTOMOTIVE RUBBER CO., INC.
BOOTH NO. 33
Robert L. Redmond, president.

BAKER INDUSTRIAL TRUCK DIVISION OF THE BAKER-RAULANG CO.
BOOTH NO. 608B, 609
D. L. Darnell, vice president; G. B. Davis, sales manager; M. W. McMillan,



D. L. Darnell



M. W. McMillan

advertising manager; H. B. Greig, field engineer; E. E. McVeigh, field engineer.

WILLIAM BAL CORP. BOOTH NO. 517
A. Ned Wilson, president; Fred Norman, sales manager; H. E. Gill, advertising manager.

BALLINGER ASSOCIATES BOOTH NO. 824
Theodore C. Leydon.

BARBER-GREENE CO.
BOOTH NO. 830, 831, 832, 833
W. B. Greene, president; H. A. Barber, vice president; E. D. Stearns, general sales manager; M. C. Ham, manager merchandise sales.

BARRETT-CRAVENS CO.
BOOTH NO. 331, 408



O. M. Lund

A. M. Barrett, president; O. M. Lund, vice president and general manager; C. E. Barnes, vice president; H. M. Donnelly, sales manager.

THE BASSICK CO. BOOTH NO. 41, 42, 43
A. J. Israel, sales engineer; Geo. Biggs, Michael Kramscak, James Funk, Jr., Sanford Evans, Geo. Oakley, engineers; Chas. Bontems, Floyd Johnson, sales department; Geo. L. Myers, Jr., president; Walter F. Herold, vice president and general manager; W. G. Reycroft, sales manager; Ralph Mount, assistant sales manager.

BELL AIRCRAFT CORP., PRIME MOVER DIVISION BOOTH NO. 129
Cyril J. Rickard, Robert J. O'Leary and John J. Phelan, district representatives; Ivan E. Fretz, service representative.

BENBOW MANUFACTURING CO.
BOOTH NO. 17



P. I. Cole

A. A. Schueler, general sales manager; Prentiss I. Cole, factory manager.

BETTER PACKAGES, INC. BOOTH NO. 103
M. W. Waggoner, general sales manager; Al Smith, Pat Cassidy, H. Smith, Ira De Blayker, O. K. Hill, T. Albert, R. Boester, Les James, L. Laughner, Jack Murphy and N. Campanaro, regional sales representatives.

BOND FOUNDRY & MACHINE CO.
BOOTH NO. 147
Lewis T. Williams.

BOSWORTH MFG. CO. BOOTH NO. 102
L. F. Noss, sales manager; H. E. Miller, assistant sales manager.

BRAINARD STEEL CO. BOOTH NO. 505
J. C. McGunnigal, general sales manager; F. E. Houck, sales manager, steel strapping division; L. J. Lyons, district sales manager; New York; W. E. Daily, district sales manager; D. O. Dougherty, sales representative, Philadelphia;



W. E. Daily



D. O. Dougherty

J. D. Boyer, material handling engineer; J. D. Yoxtheimer, material handling engineer; A. E. Adamson, material handling engineer; J. W. Byrnes, sales representative, New York; Milton Krumenacher, sales representative, New York; O. H. Gagnon, district sales manager, Boston.

THE BUDA CO. BOOTH NO. 410, 411



W. T. Mulcahy

R. B. Fisher, vice president; W. T. Mulcahy, manager industrial sales; R. J. Mulroney, manager material handling division; D. Richards, chief engineer; H. H. Cohenour, advertising manager.

E. W. BUSCHMAN CO., INC. BOOTH NO. 509
E. W. Buschman, president; V. W.



W. E. Todd



E. W. Buschman

Sicking, secretary; W. E. Todd, manager of sales; Otto Svoboda, engineer.

BUTLER BIN CO. BOOTH NO. 316, 317
Morgan R. Butler, president; Jos. A. Siegl, production manager.

C & D BATTERIES, INC. BOOTH NO. 612, 717
Geo. A. Delbos, New England division manager; R. M. Pease, New York division manager; C. F. Gross, Philadelphia division manager; A. L. Crothers, central division manager; F. W. Altrup, Washington division manager; Phil Harvey, sales manager; John F. Rittenhouse, chief engineer; Harvey MacNaughton, service engineer; A. C. Moore, service engineer; R. E. Brown, service engineer.

CASTER & FLOOR TRUCK MANUFACTURERS' ASSN. BOOTH NO. 417
Miss Hilda Marmer.

C. I. T. CORP. BOOTH NO. 804, 805B
E. T. Neville, vice president and national sales director; Wm. G. Jorgenson, advertising manager.

CHISHOLM-MOORE HOIST CORP. BOOTH NO. 826, 827
D. S. Brisbin, vice president; E. J.



E. J. Byrne



D. S. Brisbin

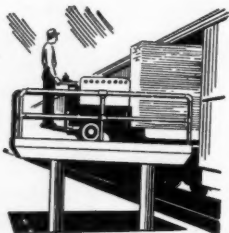
Byrne, assistant sales manager; W. J. Koch, district manager; J. T. Wilson, D. E. Dodds, and H. L. Pierce, salesmen.

CITY MACHINE AND WHEEL CO. BOOTH NO. 405
J. L. Brown, owner; T. R. Landaker, manager.

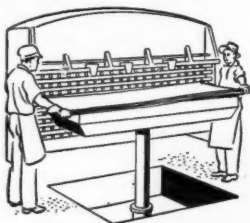
CLARK EQUIPMENT CO., TRACTOR DIVISION BOOTH NO. 602, 603, 526, 527
Russell F. Oakes, director of advertising and public relations; Madison L. Crawford; J. H. W. Conklin.

CLEVELAND WIRE SPRING CO., DIVISION OF REYNOLDS SPRING CO. BOOTH NO. 145
R. J. Poole, sales manager; F. G. Doerr, salesman.

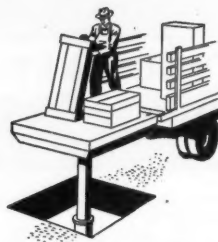
COFFING HOIST CO. BOOTH NO. 54
J. R. Coffing, general sales manager; G. H. Pool, district sales manager.



Car Loading or Unloading



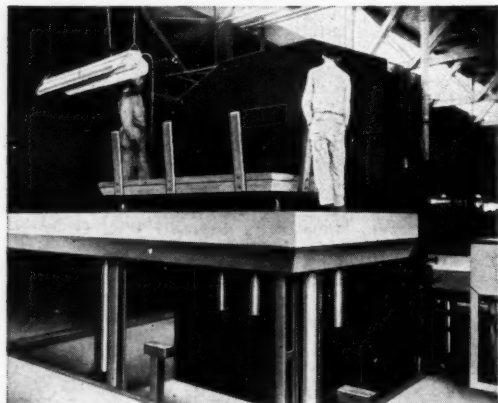
Machine Feeding



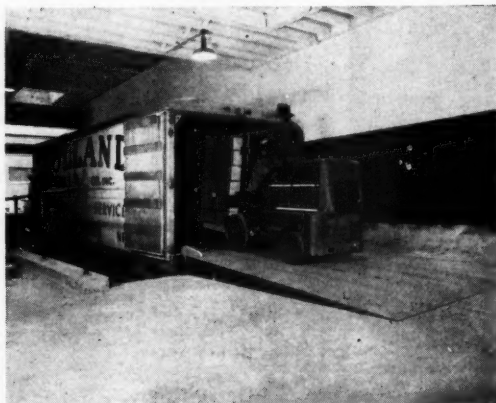
Loading Trucks

LIFT LOADS FASTER

Cut Labor Costs up to 50%



LEVELATORS lift loads directly from plant floor to trucks, freight cars, or different building levels. Also widely used for feeding and receiving materials from presses, shears, etc. Levelators speed plant traffic, conserve manpower, cut costs. Save plant space, too—no need for ramps. Installation simple, inexpensive.



LEVA-DOCKS are self-leveling, hydraulic ramps for loading docks. One end of platform is hinged into loading dock; other end automatically travels up and down as truck springs are relieved or compressed during loading or unloading. Supporting arms and "throw-over" bridge connect ramp and truck bed.



MAIL FOR FREE BOOKLETS

ROTARY LIFT CO.
1001 Kansas, Memphis, Tenn.

- ☐ Send catalog on LEVELATORS.
☐ Send catalog on LEVA-DOCKS

Name _____

Firm _____

Address _____

Rotary
(R)

Oildraulic Levelators and Leva-Docks

ROTARY LIFT CO., 1001 Kansas, Memphis 2, Tenn.

ROTARY ALSO MAKES OILDRAULIC ELEVATORS — FOR FREIGHT AND PASSENGER SERVICE

COLES CRANES, INC. BOOTH NO. 409
John Eric Steel, president; George M.



J. E. Steel



G. M. Bassnet

Bassnett, managing director; J. N. Humphreys, chief service engineer.

COLSON EQUIPMENT & SUPPLY CO. BOOTH NO. 313
G. T. Cherry, vice president, general



H. W. Boone

manager; H. W. Boone, manager, industrial sales.



G. T. Cherry

COMET MANUFACTURING CO., INC. BOOTH NO. 34



H. D. Cook

H. D. Cook; L. B. Valentine.

CONCO ENGINEERING WORKS BOOTH NO. 825
B. L. Hulse, chief engineer; G. H. Smith, agency supervisor; V. R. Billings, advertising and sales promotion manager.

IRA L. CONKLING CO. BOOTH NO. 50
Ira L. Conkling.

CONVEYOR SPECIALTY CO., INC. BOOTH NO. 802, 803
Earl D. Gilliatt, president; Ira F. Gil-



E. D. Gilliatt

liatt, treasurer; A. Conrad Anderson, sales manager; Finn N. Follum, R. Elliot Vergobbe.



A. C. Anderson

H. W. CREAGER MFG. CO. BOOTH NO. 314



H. W. Creager, president.

H. W. Creager

CRESCENT TRUCK CO. BOOTH NO. 138, 144
C. D. Eiler, president; J. G. Ehrhorn, sales engineer; H. D. Keefer, sales and service engineer.

DARNELL CORP. BOOTH NO. 15
Paul O. Young, president, Young's Philadelphia Trucks; A. H. Seymour, division manager Darnell Corp.; N. L. Syme and G. F. Milley, salesmen.

DEMPSTER BROTHERS BOOTH NO. 328, 329, 330
T. G. Shea, vice president; J. G. Walden, sales manager; H. W. Jones, chief engineer; J. S. Dempster, assistant engineer.

DIAGRAPH-BRADLEY INDUSTRIES, INC. BOOTH NO. 310
James W. Brigham, president.

DIVINE BROTHERS CO. BOOTH NO. 519
Chas. M. Mead, vice president; J. D.



C. M. Mead



J. D. Blair

Blair, chief engineer; Geo. Reedy, sales department; Dan L. Donovan, sales department.

DRAKE, STARTZMAN, SHEAHAN, BARCLAY, INC. BOOTH NO. 25
Albert B. Drake, president; J. D. Sheahan, secretary and treasurer; Neil Drake, vice president; Burr W. Hupp, staff economist.

ECONOMY ENGINEERING CO. BOOTH NO. 312
E. W. McDonnell, president; W. J. Pavey, vice president; K. G. Anderson; H. V. Benzinger.

EDISON STORAGE BATTERY DIVISION, THOMAS A. EDISON, INC. BOOTH NO. 420
Geo. E. Stringfellow, vice president and division manager; E. W. Allen, manager of engineering; W. M. Schleicher, commercial engineer; G. J. Mertz, Philadelphia district manager; W. W. Gould, Cleveland district manager; H. W. Teter, Boston district manager; F. D. Van Lew, New York district manager; J. A. Mustard, Jr., Washington district manager; C. B. Archibald, Pittsburgh district manager; H. A. Drew, Chicago district manager; J. J. Hughes, St. Louis district manager;

W. B. Manson; G. J. Mertz, G. H. Milligan; E. W. Ahlstrom; C. A. Hornell; L. F. Hawkey; W. F. Star-



G. H. Milligan



G. J. Mertz

rett; L. E. Gunther; A. J. Darlson; H. J. Marsh, Jr.; H. V. Allen; F. D. Lansdell; C. P. Wood; R. H. Boykin, Jr.; W. L. Lindner; R. D. Piper; R. A. Leavitt.

ELECTRIC INDUSTRIAL TRUCK ASSN. BOOTH NO. 835



C. F. Kells, managing director.

C. F. Kells

ELECTRIC PRODUCTS CO. BOOTH NO. 614
Gordon J. Berry, vice president; R. J.



R. J. Peck

Peck, New York district manager; C. L. Leaf, New York district office; Robt. G. Redhead, advertising counsel.



G. J. Berry

ELECTRIC STORAGE BATTERY CO. BOOTH NO. 608-A
Roland Whitehurst, vice president in charge of sales; W. Van C. Brandt, manager, motive power sales; A. N. Dingee, advertising manager; Geo. F. Krauss, advertising department; W. C.



W. Van C. Brandt



R. Whitehurst

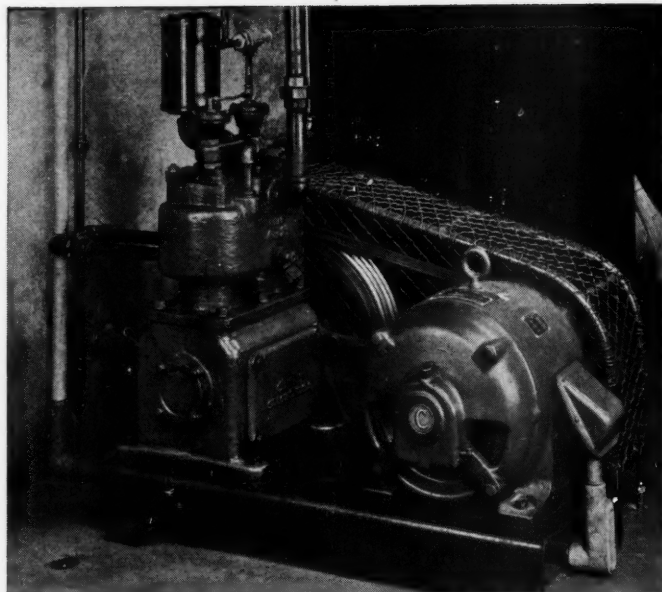
Hooven, manager Philadelphia branch; J. W. Weigt, manager New York branch; H. H. Warren, assistant manager New York branch; H. F. Sauer, manager Chicago branch; C. W. Wil-

(Turn to page 58)

Curtis Timken Bearing Air Compressor. Sizes from ¼ to 50 H. P., inclusive.

**RELIABILITY
That Pays Off
in Low-Cost
Performance**

CURTIS



TIMKEN BEARING AIR COMPRESSORS

WHATEVER the application, in thousands of varied industrial installations, Curtis Timken Bearing Equipped Air Compressors have a long and proven record of extreme reliability, low maintenance expense and unusually long life.

Every Curtis Air Compressor has been carefully engineered, made of the highest quality materials and precision built throughout.

Their dependable, economical performance is the result of such design advantages as:

- Timken Roller Bearings
- Self-Oiling—Positive Lubrication
- Carbon-Free Disc Valves
- Automatic Pressure Unloader
- Fully Enclosed Design
- Precision Construction

Specify CURTIS when you want a reliable, low-cost supply of air for any use. Capacities from ¼ to 50 H.P. (up to 300 CFM).



Curtis Timken Bearing Air Compressor with tank. Sizes from ¼ to 10 H.P., inclusive.

Write today for full information on Curtis Air Compressors, Air Hoists and Air Cylinders—
or mail the coupon below.

I-48-1

CURTIS

PNEUMATIC MACHINERY DIVISION

of Curtis Manufacturing Company
1909 Kienlen Avenue • St. Louis 20, Missouri

95 Years of Precision Manufacturing

CURTIS PNEUMATIC MACHINERY DIVISION of Curtis Manufacturing Company
1909 Kienlen Avenue, St. Louis 20, Missouri

Please send me Form
C-7 on Curtis Air
Hoists, Air Cylinders
and Curtis Air
Compressors.

Name.....
Firm.....
Address.....
City..... Zone..... State.....

Mercury

brings you 38 years material handling experience!

ORIGINATORS
OF THE MERCURY
"TRACKLESS TRAIN"
SYSTEM OF MATERIALS
HANDLING

FORK TRUCKS

"JEEP" FORK TRUCK
2000 lbs. capacity



"YAK" FORK TRUCK
4000 lbs. capacity



"YANK" FORK TRUCK
6000 lbs. capacity



"Jeep" Sit Down, Center Control Fork Truck, 2000 lbs. capacity. Compact design affords easy manipulation in confined areas.

"Yak" Center Control Fork

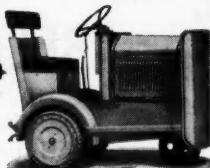
Truck, 4000 lbs. capacity. Rugged design.

"Yank" Center Control Fork Truck, 6000 lbs. capacity. Designed for tough continuous service.

"TUG" ELECTRIC TRACTOR
Max. D.S.P. 2500 lbs.



"BANTY" GAS TRACTOR
Max. D.S.P. 2300 lbs.



A-310
Castor Steer
TRAILERS



"Tug" Electric Tractor: A powerful compact tractor available in "Twin-wheel" and "4-wheel" models, medium or heavy duty.

"Banty" Gas Tractor: The most compact tractor made, yet develops a draw bar pull

in excess of 2000 lbs. Thousands now in use.

"Huskie", and "Super-Huskie" gas tractors (not illustrated) 4 and 6 wheel heavy duty models.

Trailers: Available in castor or 5th wheel steer, platform or side dump types.

SEE US AT THE SHOW

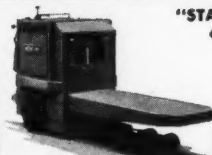
Booth 324-325 • National Materials Handling Exposition
Convention Hall—Philadelphia January 10-14

TRACTORS and TRAILERS

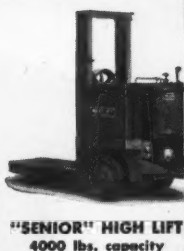
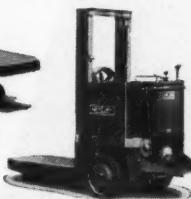


PLATFORM LIFT TRUCKS

"STANDARD" HIGH LIFT
6000 lbs. capacity



"JUNIOR" LOW LIFT
4000 lbs. capacity



"SENIOR" HIGH LIFT
4000 lbs. capacity

"Junior" Models: Narrow design. Low, high or telescopic lift. 3000 or 4000 lbs. capacity. "Senior" Models: Low, high or telescopic lift. 4000 lbs. capacity.

"Standard" Models: Low, high or telescopic lift, 6000 lbs. capacity. "Mogul" (not illustrated) Heavy duty. Low or high lift. Capacity, 10,000 lbs.



MERCURY

FREE: Catalog No. 7-11 New 52 page catalog illustrates and describes complete Mercury line. Request your copy on company letterhead today.

THE MERCURY MANUFACTURING CO.

Is your Industry's use of BELTING shown here



#60-10 DANDUX STANDARD—For conveyors and elevators, handling abrasives, such as crates, castings, metal scrap, steel, stampings, heavy materials.



#60-15 DANDUX BLACK—For conveyors and elevators, handling semi-abrasives, grain, cartons, bags, wood chips, etc.



#60-20 DANDUX PYROFLEX—For conveyors and elevators handling hot materials, foundry sands, etc. up to 300°F.



#60-25 DANDUX INSULEX—For conveyors and elevators handling very hot materials, foundry sands, etc. up to 450°F.



#60-30 DANDUX PACKAGE CONVEYOR—For Industrial and mercantile use in conveying bags, boxes, packages, etc.



#60-35 DANDUX SANITEX—For sanitary conveyors and elevators handling foodstuffs or similar materials.

#60-40 DANDUX ROLLEX—Power medium for actuating rollers on live roller conveyors.

#60-45 DANDUX TRANSO—For power transmission.

*Here's what
DANDUX means
to users of
STITCHED CANVAS
BELTING*

Of Uniform quality and high tensile strength, DANDUX manufactured canvas is saturated with quality compounding to insure perfect lubrication, slow deterioration, high flexibility, and long life. DANDUX belting is pre-stretched for exacting installation specifications. Engineering advisory service is a DANDUX extra guarantee for satisfactory belting. DANDUX is backed by personnel experienced for 35 years in design, manufacture, and sale of stitched canvas belting.



**GET
YOUR
CATALOG**

Write for a
wealth of bel-
ting information
Catalog 10 FL, 549 W.
Randolph St., Chicago 6,
Ill.



C. R. DANIELS, INC.

Belting Division

CHICAGO

BALTIMORE

You, Too, Can CLEAN UP . . .

with modern methods

You often hear it said that material handling equipment "is all right for the large manufacturer." The implication is that the small plant doesn't need such equipment, or can't afford it. We are a "small plant" in a small township. Solon is the type of suburban community in which our garden tractors and attachments are being used on estates and small acreages.

Our experience certainly contradicts the notion that modern material handling devices do not apply to the small operation. In our plant of about 30,000 sq. ft., we invested a total of \$10,000 for such equipment, plus the cost entailed by the layout revision. It will be illuminating to other "small plants" to know that our investment paid for itself in only 12 months.—Mrs. P. J. Kohler, President, Bready Tractor and Implement Co.



By E. W. PATTON
Plant Superintendent
Bready Tractor and Implement Co.
Solon, Ohio

**MONORAIL CRANE, HOISTS,
FORK TRUCKS, RACKS, SKID BINS,
FLOOR TRUCKS.**

The back-to-the-soil movement has given the garden tractor industry new markets and new importance. To satisfy the growing demand for these products, the Bready Tractor and Implement Co., Solon, Ohio, undertook a thorough-going modernization and expansion program. Higher unit production per manhour and greater plant safety are two of the many worthwhile results obtained. The project is still continuing—and the company is harvesting additional production improvements.

Expansion Program—Improvement Program

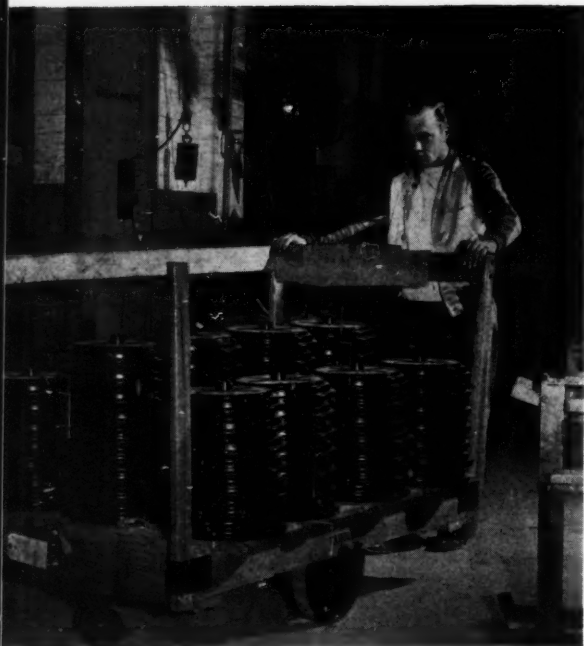
OUR plant has been undergoing an extensive expansion program since 1945 in order to meet the growing demand for garden tractors and attachments. During this time, we added three new sections to our one-story building. At the same time an exhaustive study was made which resulted in a com-



BAR STOCK TRAVELS via monorail system to fabrication and is placed in racks adjacent to the screw machines. Switches shunt loads.

OVERHEAD CONVEYOR takes painted parts through drying tank (left rear). Stand (center) holds drying parts which can not be conveyORIZED.



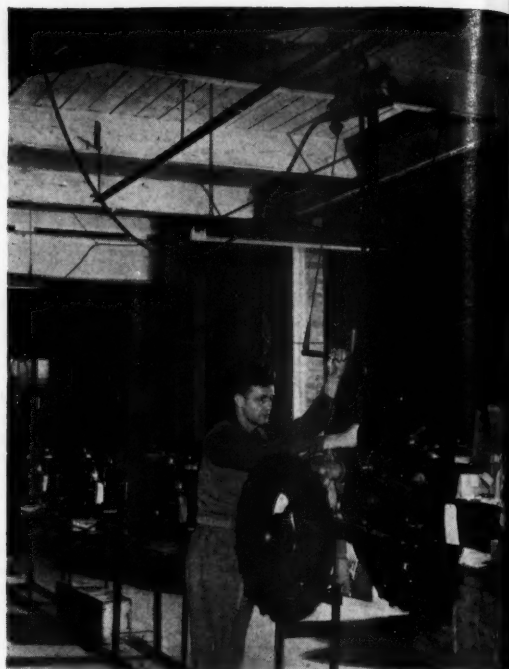


plete revamping of our production layout.

Prior to the expansion and modernization program, raw steel was unloaded piece-by-piece and stored in the front yard. It was thus subjected to the weather, and during winter the rehandling to fabrication created additional difficulties. It took eight to 10 men approximately four hours to unload a truck load of steel ranging from 25,000 to 40,000 pounds. All handling within the plant was also done manually, which exacted a penalty in terms of time and effort. Another factor which concerned us was the frequent accident rate.

Our new mechanized program got under way with the construction of a raw stock storage room, the addition of a separate receiving-shipping-storage area and the enlargement of the fabricating room. These additions increased the total plant square footage to about 30,000. The new material handling facilities included a monorail crane for raw stock receiving and delivery to fabrication, fork lift trucks, an overhead chain conveyor, as well as various work carriers which are told about in later paragraphs.

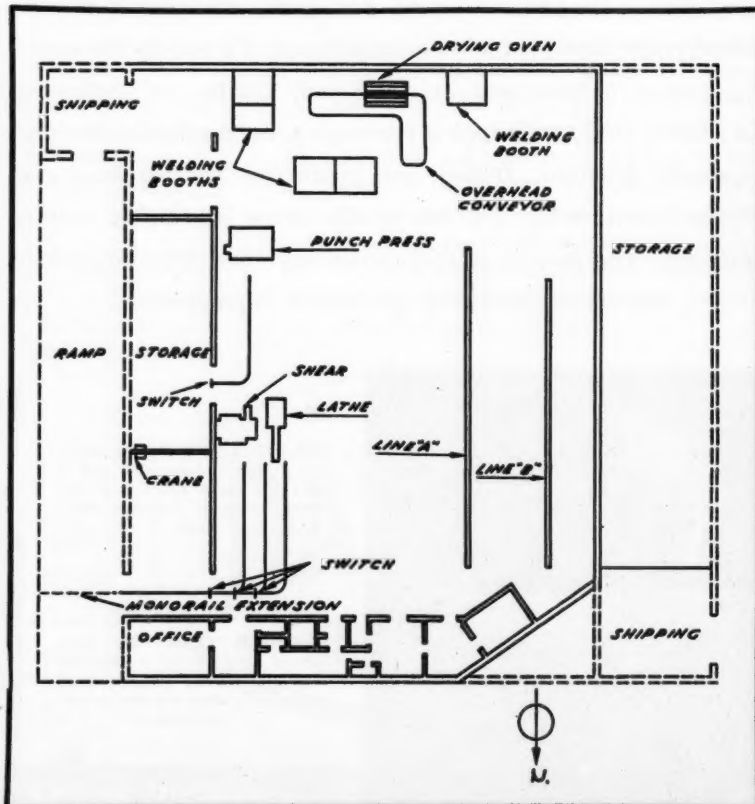
To give a quick idea of our

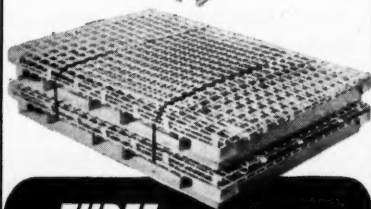
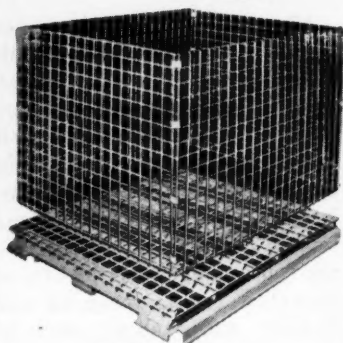
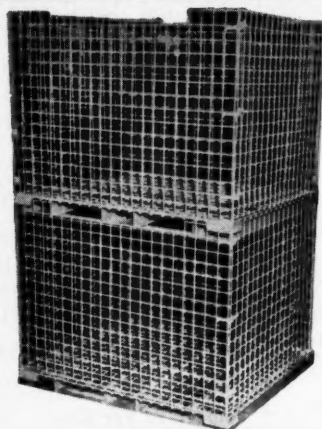


CASTERED FLOOR TRUCK is used for transporting wheel rims from storage area to tire assembly.

HALF-TON AIR HOIST removes 2½-ton HP models from the assembly line. Note tractors moving through assembly on four-wheel flanged dollies.

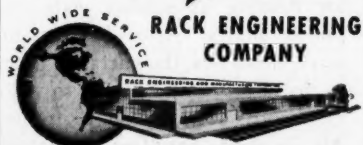
PLANT LAYOUT shows crane and monorail installations. Dotted lines indicate new plant additions for improved handling and material flow.





THREE for the PRICE OF ONE!

Here is a pallet, a cargo container and a stacking box in one efficient unit! A wire pallet with quickly detachable wire sides to offer you the most in material handling variety. Withstands a crush load of over 4 Tons! Sides can be detached in 30 seconds! Knocks down flat for economic return shipping! Rugged construction throughout!



925 LIBERTY AVENUE Pittsburgh 22, Pa.

CONCO

HANDLING EQUIPMENT



CONCO TYPE DM
OVERHEAD
ELECTRIC CRANE

● WRITE today for complete information on the CONCO line of hand-powered and electric cranes, hoists and trolleys — a complete line, tried and proven for over twenty years. CONCO engineers are qualified to recommend the right type of handling equipment for faster, more economical production in your shop. Write us now, and take advantage of our long experience in moving more materials, faster and at less cost.

CRANES • HOISTS • TROLLEYS



Division of
H. D. Conkey & Co.

CONCO ENGINEERING WORKS, 38 Grove St., MENDOTA, ILL.

Extra yard profits from low cost handling with ROUSTABOUT CRANES

.. The fast
tractor-footed
load-hustlers

● You've got a crane with hook or magnet anywhere you want it around your yard exactly when you want it—when a Roustabout is on the job. Fast, powerful, this mobile load-hustler gives you low cost materials handling outdoors all around your plant to match your indoor efficiency. It keeps things organized, on the move, prevents costly delays—no waiting for crews from other jobs. Built for years of overwork—ball-bearing boom turntable, all gears in oil. Capacities to 7½ tons—it's the answer to your yard problem. For complete facts... write to Dept. C-6.

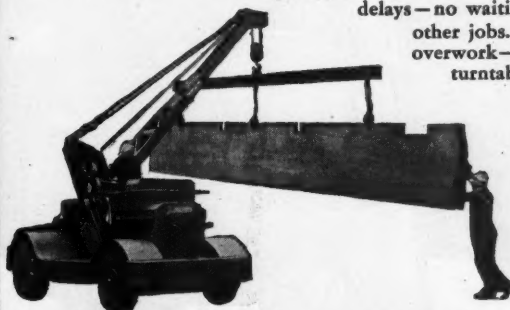


Photo courtesy of Industrial Power Division, International Harvester Company



HUGHES-KEENAN CORPORATION

DELAWARE, OHIO, U. S. A.

Load-Handling Specialists since 1904

This Crescent

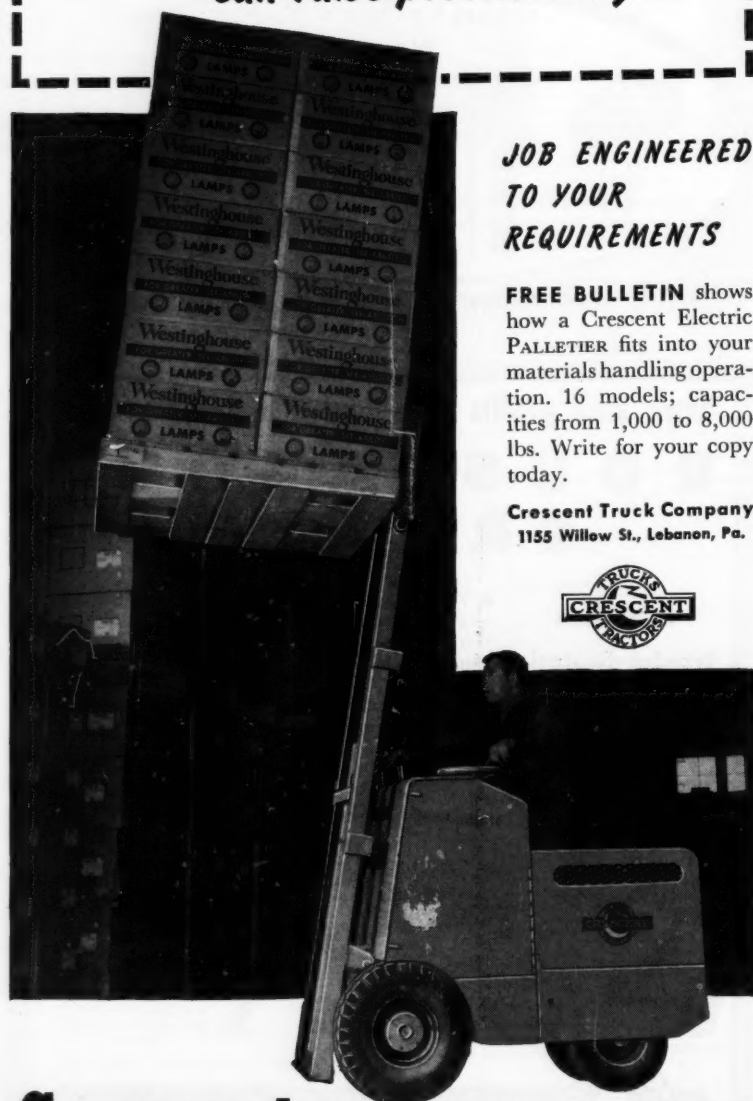
raises profits for Westinghouse

The Crescent Electric PALLETIER does just that in this Westinghouse warehouse in Trenton, N.J. It lifts, hauls, stacks loads high and keeps handling costs low. One operator does the entire job—with ease.

Wherever the PALLETIER is in use, costs decline. Maneuverable and packed with power, the PALLETIER slips in and out of narrow areas, negotiates ramps, cuts terminal time for loading and unloading of carriers.

A Crescent

can raise profits for you



JOB ENGINEERED TO YOUR REQUIREMENTS

FREE BULLETIN shows how a Crescent Electric PALLETIER fits into your materials handling operation. 16 models; capacities from 1,000 to 8,000 lbs. Write for your copy today.

Crescent Truck Company
1155 Willow St., Lebanon, Pa.



Crescent

**ELECTRIC INDUSTRIAL TRUCK AND
TRACTOR SPECIALISTS SINCE 1917**

present improved handling procedures, two operators now unload a comparable truck load of steel in 30 minutes by use of the crane. And accidents have become a rare occurrence. Inside storage for the steel likewise avoids hazardous outdoor tasks in inclement weather, besides keeping the stock in good condition. These innovations, plus an improved production layout, have boosted our unit production from 50 to 200 per cent.

Unloading Time Decreased Almost 90 Per Cent

All raw steel is received at a dock at the northeast corner of the building. A 24' monorail extension services this receiving area. A 5000 lb. pendant-controlled hoist unloads stock from the incoming trucks and spots it in the desired location in the 26' x 80' storage room. The monorail crane spans the width of the room and travels its entire length. Incoming stock includes steel tubing, solid bar stock, flat hot rolled steel, and angle irons. The raw material is usually received banded with steel strapping or wire in two-ton loads or less.

When needed for fabrication, steel stock is picked up by the crane and transported via one of three monorail switches to the desired station in the 90' x 143' fabrication room. The longitudinal track for the crane is equipped at two points with switches to route the hoist to the tracks leading to the punch press, shearing or screw machines. The directional flow of the material through processing is from east to west; final assembly flow from south to north.

The flat steel is first sent to the shearing machine or punch press and is ultimately used for frames of tractors and implements. Tubing and bar stock, routed initially to the screw machines, is machined for bearing assemblies, axle and pinion shafts. After leaving the screw machines, the parts are taken to drill presses and finally to welding booths for welding to frames. All in-plant handling is accomplished with skid boxes which are

transported by fork lift trucks. Angle irons are piled on flat semi-live skids, and arranged in criss-cross pattern. Bar stock is placed on portable five-foot-high racks when it reaches the screw machines. After it has been cut in lengths, it is routed through the remaining fabrication in the skid boxes.

Shortest Possible Flow

From the initial fabrication areas, the material-in-process is transported in skid boxes either to the welding booths or paint department. Welding completes fabrication of main tractor frames, cultivator and disc frames and Coulter brackets. Material to be degreased is placed into a perforated metal basket and dipped with the aid of a 1000 lb. hoist. These parts are then taken to the paint tanks.

Dipping is by hand (because of the size of the volume) and the parts are then hung on an overhead chain conveyor which travels through the infra-red drying oven. This conveyor is approximately 102' long, with uniform hooks, spaced on 30" centers. Between the hooks, eyes are attached to the chain to accommodate special or irregularly shaped items. For small pieces, a $\frac{3}{8}$ " rod is placed on two hooks, thus utilizing maximum conveyor capacity.

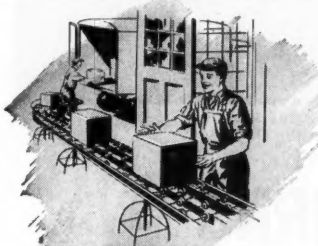
The compact layout in the south end of the plant illustrates part of the revisions that were made. The welding booths, degreasing and paint tanks are close together to permit manual transfer of material between these stations. The welding booths were located in a semi-circle in relation to the other processing stations. Regardless of the particular welding job, therefore, the completed pieces are equidistant from the next operation. The accompanying layout shows the pattern that was developed for efficient flow.

The dried parts are removed from the conveyor and then put into skid boxes and taken to final assembly, or direct to shipping.

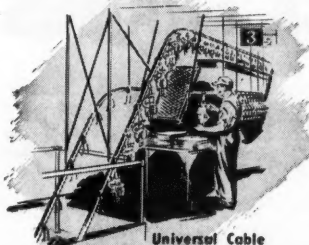
(Turn to page 53)

Buschman Conveyors

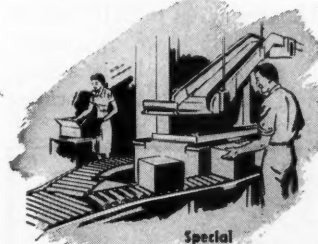
...get a big hand in any handling show



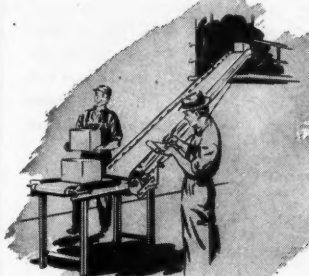
"Roll-or-Wheel"
Portable Conveyors



Universal Cable
Type Trolley
Conveyors



Special
Conveyors



"Belt-elevator"
floor-to-floor
Conveyor

For the newest and best in transporting materials Buschman Conveyors get an enthusiastic reception from materials handling experts.

Efficient Handling Reduces Costs. Whatever your needs, for receiving, manufacturing, assembly and shipping, there's a Buschman Conveyor to do the job.

For that "tough" conveyor problem, let Buschman Engineers take over. They'll show you — at no obligation — how Buschman low-cost Conveyors fill your needs.

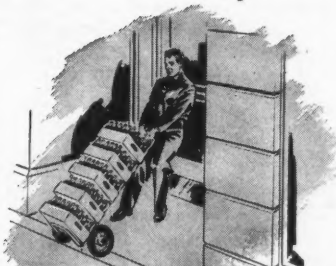
For complete details write for Catalog No. 300.

See 'em
at the Show



The E. W. Buschman Co., Inc.
Winton Place
Cincinnati 32, Ohio

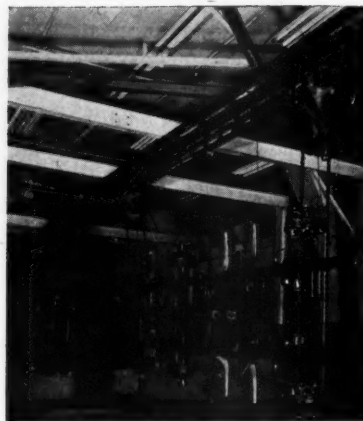
Buschman Conveyors



Hand Trucks... Many features in wheel and frame combinations.




▲
UPSIDE DOWN assembly approaching trip (rear). Tripped frame, front, goes to the paint spray booth.



UPSIDE DOWN frame is shown in the process of being turned right side up.

THIS "TRIP" TURNS



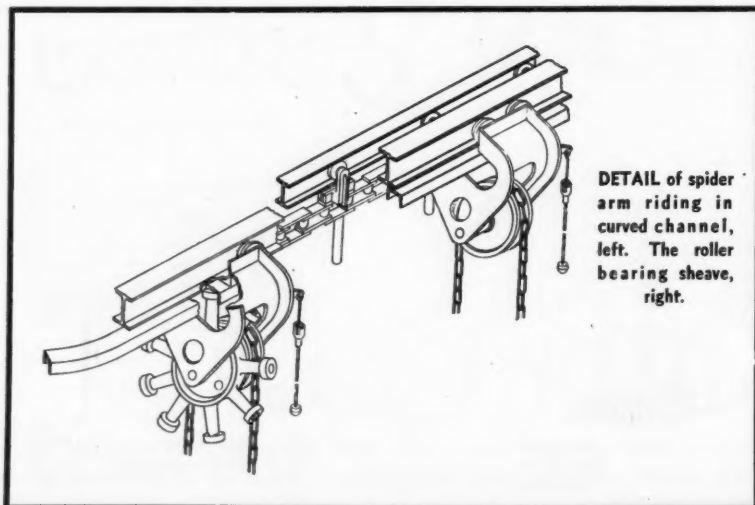
TRUCK FRAMES

Right Side Up

The force of gravity is utilized in this semi-automatic turn-over operation in the Highland Park, Mich., truck plant of Ford Motor Co. This was formerly a hard and hazardous job

GRAVITY aids in the turn over of truck frame assemblies weighing from 760 to 3710 pounds from an up-side-down to a right-side-up position. Replacing a long-standing practice of performing

this job manually, with potential danger to personnel, the Ford method does it semi-automatically. During the turn over the assembly travels approximately 50 feet on an overhead gravity conveyor, with no operator in the protected area. Workmen do not resume handling the units until the turn over is completed and they enter an enclosed spray booth.



DETAIL of spider arm riding in curved channel, left. The roller bearing sheave, right.

Safe Operation with Turn Over Fixture

The truck frame enters the first step of the assembly operation in an upside down position. It travels a distance of 398 feet at a rate of about nine feet a minute on a floor conveyor. Before the frame reaches the turn-over stage such sub-assemblies as axles, running board brackets, springs, drive shaft, brake and clutch rod assemblies have

been put in place along with numerous small parts. At the final station an operator loops two chains suspended from the trolley-mounted carriage of an overhead conveyor around the forward and rear ends of the truck frame.

Before the weight of the frame is supported by the chains, one of the eight arms of a spider turn-over fixture (at the forward end of the carriage) is guided by a funnel-shaped mouth into an inverted "U" channel in which the spider arm travels a total of 40 feet. Each arm of the spider has a ball bearing knob or roller, as shown.

The last 30-inch length of the channel veers sharply to the right. As the knob travels in this curved section it rotates the spider, giving a turning motion to the chain on the forward drum. The circling chain tilts the cradled frame from a horizontal to a vertical position. As the spider arm leaves the channel, the frame responds to gravity and quickly completes the turn. While rotation of the chain on the forward drum is actuated by the spider arm riding in the curved channel, the rear chain rides free on a roller bearing sheave (see drawing).

The chains in which the frame is carried and turned over are of $\frac{3}{8}$ -inch heat-treated steel.

After being turned right side up, the frame assembly continues to the spray booth, where it receives a coating of asphaltum base rust-resisting paint. The unit then continues on the overhead gravity conveyor to the chassis line, where it is again transferred to a floor-mounted conveyor. The empty carriers are returned on the closed circuit of the overhead conveyor to the start of the line.

This Ford truck-frame turn-over is somewhat spectacular when seen in operation, partly because it is incorporated in an overhead chain conveyor and partly because of the weight of the units handled. It is serving well in providing a safe and trouble-free operation in the semi-automatic manipulation of heavy components.

Bond
REG. U. S. PAT. OFF.

Shortcuts to Speedy, Easy Handling



BOND BEVERAGE TRUCK

*For Faster Handling
with Less Footwork*

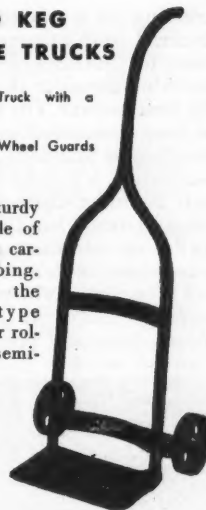
High capacity reduces legwork. Semi-pneumatic tires assure smooth, shockproof transportation for fragile loads. Full welded tubular steel, 49" high; nose 14" wide by 7½" deep. Light—weighs only 29 lbs. Equipped with stair glides.

BOND KEG AND CASE TRUCKS

No. 4691—The Truck with a Thousand Uses.

No. 4962—With Wheel Guards for Handling Bags.

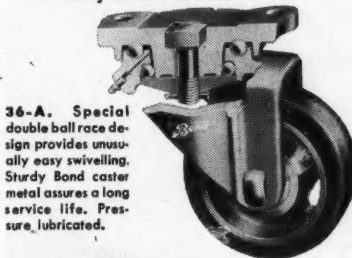
This pair of sturdy trucks are made of 1" square high carbon steel tubing. Available with the following type wheels: plain or roller bearing semi-steel; plain or roller bearing vulcanized-on rubber.



BOND TRUCK CASTERS

Save Time at Every Turn

You will find the caster that's exactly right for your particular plant conditions in the complete Bond line. There's a Bond *built-for-the-job* caster for every industrial use.



36-A. Special double ball race design provides unusually easy swivelling. Sturdy Bond caster metal assures a long service life. Pressure lubricated.



40-A. All Steel Caster. A practically indestructible caster for heavy duty. Swivels with frictionless ease on hardened ball races. Pressure lubricated.

BOND UNIVERSAL LIFT JACK

The Jack for All Trades



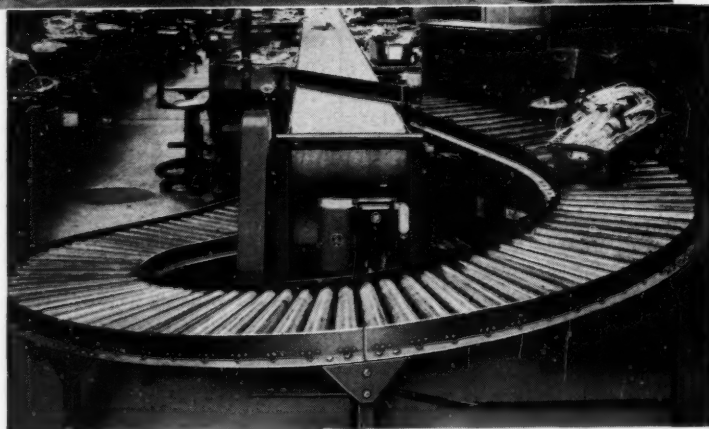
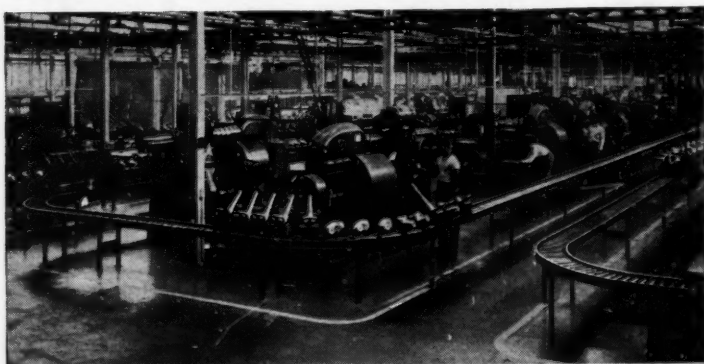
Simplifies handling of light and heavy loads. Couples and uncouples quickly, turns easily. Handle adjusts to operator's height. Operates in close quarters with handle in vertical position.

Send for free folders describing the advantages of Bond hand trucks, casters and lift jack.

Bond Foundry & Machine Co., Manheim, Pa.

CONVEYORS LIKE THIS WON'T CUT YOUR COSTS

Looking for a way to get material from one part of your plant to another . . . you wouldn't consider the burro as the best answer. The real answer to fast, economical material handling is Standard Conveyors—a system, a section or a portable powered unit. Standard Conveyors are built for almost every material handling need, from mail to malleable iron castings. Look over your shop or warehouse, there's more than an even chance you can save time, money and labor with a Standard Conveyor. Standard Conveyor Company, General Offices: North St. Paul 9, Minn., Sales and Service in Principal Cities.



FREE HELPFUL LITERATURE
Send for Standard's Catalog. See how conveyors are used in every field of industry. Ask for Bulletin No. FL-19

Standard
GRAVITY & POWER
CONVEYORS

Institute and Association Activities

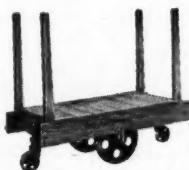
AT ITS annual meeting held at White Sulphur Springs, the Foundry Equipment Manufacturers Association elected the following officers to serve during 1949: President, William L. Dean, Mathews Conveyor Co.; vice president, John Hellstrom, American Air Filter Co.; and executive secretary & treasurer, Arthur J. Tuscany, Arthur J. Tuscany Organization. Dean succeeds former president Otto Pfaff, of the American Wheelabrator & Equipment Corp.

THE January meeting of the material handling section, American Society of Mechanical Engineers, Detroit, has been scheduled January 19, at the Engineering Society of Detroit, Rooms C and D. The program will include a representative of an aluminum company who will discuss different types of conveyors used in its aluminum foundries.

THE Technical Extension Division and Department of General Engineering of Purdue University, with the cooperation of the Indiana Material Handling Society, announces initial plans for a material handling conference to be held on the campus February 21 and 22. Included among the committee responsible for planning the conference program are: E. W. Mikels, Diamond Chain Co.; W. W. Phillips, Eli Lilly & Co.; and C. F. Flakner, Materials Handling Equipment Co. These men are officers in the society.

THE Midwest Material Handling Society, Chicago, will feature Chas. F. Kells, managing director, Electric Industrial Truck Association, as guest speaker dur-

**FACTORY
TRUCK
54600**



Handy for many general moving jobs as "stock" truck... carrying parts from machine to machine in the course of manufacture. Three lengthwise bolsters assure ample platform support; strong construction throughout. Stakes are removable to add to its general handiness.

01433

Designed specifically for quicker handling of sheet plates in mills but proved very useful for carrying other large, bulky loads. Rugged construction throughout to withstand heavy loads... heavy iron strap, set flush, binds platform all around. Wheels extra wide for greater stability.



500

Lifts and rolls easily... ideal for handling heavy loads in small spaces. Eliminates many handling processes. Powerful jack operates by merely pulling handle down. To remove jack, handle lifts up and jack rolls out. No pins, ratchets or levers to operate.



8 WAYS to Save Time and Lower Operating Costs

Receiving... production... shipping — no matter which of your departments has *slow spots*, it all adds to the cost of the finished job. Where load-handling is bogging things down, put in the right type of Fairbanks Truck for your purpose — each is specifically designed to put speed into tough handling jobs. Check the features of these eight trucks and if you don't see the one to help you, write for Catalog 50 in which over 200 various types are described and illustrated. The Fairbanks Company, 393 Lafayette St., New York 3, N. Y.; Boston, Mass.; Pittsburgh, Pa.; and Houston, Texas.

American industry rolls on
**fairbanks
trucks**



CASE TRUCK — L1191

Malleable iron construction. Light in weight yet practically indestructible. Designed for easy handling of heavy cases, boxes and heavy machinery. Spikes on frame top prevent load from slipping. Carries up to one ton.



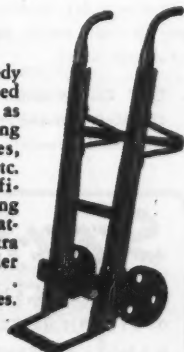
**COTTON
TRUCK — 9213**

Ideal for handling bales. Designed for the cotton industry but its features make it readily adaptable for easier handling of other large, bulky objects. Full-length steel strapping — front and back — on selected hardwood handles for extra strength and service.



**FEED
TRUCK — 9310**

Designed for speedy handling of feed bags but just as handy for moving cases and bales, such as hay, etc. Also proved efficient for handling plumbing and heating supplies. Extra long nose for easier load pick-up... steam bent handles.



**COMMANDER STEEL FRAME
PLATFORM TRUCK — S2742A**

Here's a Tilting or Center Balance Truck that's a real time-saver. Designed for quick turning in congested areas, around corners, narrow aisles. Turns in its own length... pushes from either end. Strong construction throughout. Available with Plain or Roller Bearing Semi-Steel Wheels or Roller Bearing Rubber Tired Wheels.



BARREL TRUCK — 426

All steel construction. Specially built to make handling of open barrels easy and quick. Good balance and maneuverability.



ing its January meeting. The title of his talk will be "Establishing Cost Analysis Systems for Material Handling Operations." The meeting will be held at the Midland Hotel, January 11.

THE November meeting of the Central New York Chapter of the Material Handling Institute (Syracuse) heard Harry E. Stocker of the H. E. Stocker and Associates Inc. speak on "Material Handling, Principles and Applications."

The January 18 meeting of the chapter will feature a talk on the factors to be considered when selecting material handling equipment. In addition, a plant visit is planned to the Geddes Street unit of Carrier Corp. where members will be shown solutions of problems involving a wide variety of equipment.

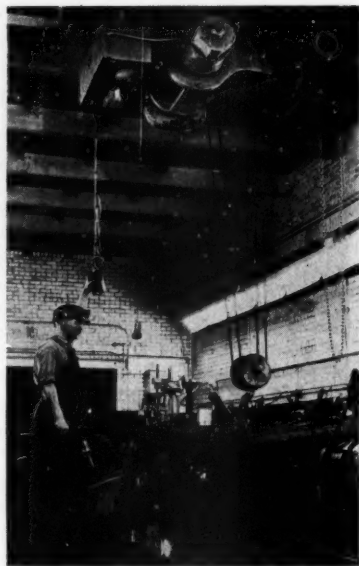
SIXTY-FIVE persons were in attendance at the November meeting of the Northeastern Ohio

Chapter of the Material Handling Institute, Cleveland. The main speech of the evening was given by Earl F. Riter, director of material handling of the Glidden Co. He spoke on, "Selling Material Handling to Management." Also included on the program was the General Electric Co.'s sound film "Material Handling in Receiving, Warehousing, and Shipping." After the movie, Riter and A. E. Aukens, material handling consultant, conducted a round table discussion.

THE American Monorail Co., Cleveland, has joined the National Material Handling Institute. J. P. Lawrence, president, is the official company executive to be represented in the Institute. The company manufactures monorail and underslung crane systems.

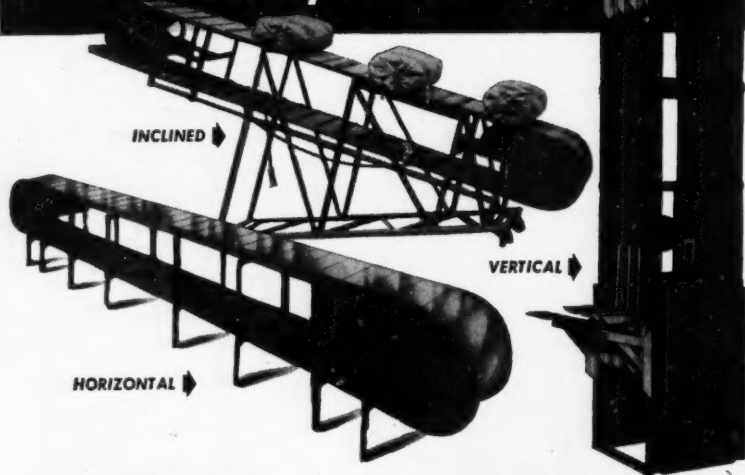
A Push Button Job

THE LIFTING of heavy objects in the Jones & Laughlin Vesta #4 Mine underground shop is merely a push-button job. This 5-ton hoist, powered by an induction motor, takes




over the drudgery of lifting heavy mechanized equipment during tear down and assembly, thereby speeding up the all-important repair job. The pit, which is lighted by recessed fixtures, provides ready access to the underside of mechanized equipment. — Courtesy, Westinghouse Electric

STEEL PARTS STEEL BELT CONVEYORS PRE-ENGINEERED for Your Specific Job



PRE-ENGINEERING makes Steel Parts steel belt conveyors easy to install, operate and maintain — and their flexibility suits them to your specific job. Whether you're installing a single conveyor or an entire system, consider the cost-saving advantages of steel belt conveyors — a flat, sagless surface of steel, easy to clean, sturdy and rugged. Write for details today.

 Certain choice territory still open. Qualified representatives are invited to write for information.

Here's What Steel Belt Conveyors Did for One User

1. Production efficiency UP 30%.
2. Unit cost DOWN 10%.
3. Machine capacities UP 65 to 95%.
4. Operating space CUT 58%.
5. Waste REDUCED by 5%.

GET THE COMPLETE STORY Mail This Coupon Today

STEEL-PARTS MFG. CO.
4630 W. Harrison St., Chicago, Ill.

Please send me complete information including engineering data and specifications on your Steel Belt Conveyors.

Please have your representative call to discuss our specific materials handling problems.

NAME _____ POSITION _____

FIRM _____ ADDRESS _____

CITY _____ STATE _____

STEEL-PARTS
MANUFACTURING CO.
DIVISION OF BLACKSTONE
MANUFACTURING COMPANY

CLEANS HOUSE . . .

(Continued from page 47)

Items such as sulky axle housings, sulky frames, tractor trailers, and cultivators, are shipped knocked down because of the bulky finished package which would otherwise result. More details on this operation are given later.

Tires, engines, and rims are received at a second storage area at the west side of the building. This area is adjacent to the assembly point, and hence backtracking has been eliminated and travel kept to a minimum. Tires are transported by two-wheel hand trucks.

Parallel Assembly Lines

The garden tractors are made in 1½ HP and 2½ HP models weighing 200 pounds and 260 pounds respectively. They are assembled on two parallel lines (line A for the smaller one, line B for the larger) at the west side of the fabrication room. The individual units ride through assembly on flanged four-wheel dollies running on metal tracks at waist height. As the dolly is pushed along, the various parts of the two-wheel garden tractor are added. Line A is 50 feet long, line B 30 feet.

Engines are transported by fork truck from the west side storage room to the assembly lines. (They are fueled and adjusted when they are installed.) The completed 2½ HP models are removed from the assembly line with the aid of a 1000 lb. air hoist. The smaller model is rolled off the line on ramps. Present plans call for the extension of the monorail track across both lines so we can use the hoist for removing both models.

Secondary Shipping Area

The finished tractors are wheeled to the packing station located at the north end of the storage room, where the models are crated. The crates are received knocked down—the top and one end are open. The tractor is wheeled in and the sides are nailed. Tractor handles are shipped separately. Fork trucks load the crated tractors onto highway trucks.

SAFETY

in factory
maintenance work
with a
**Model PUL
TELESCOPER**



Overhead crane maintenance 22 feet above the floor, as illustrated, used to be a hazardous undertaking.

Now one man sends the platform of this Hi-Reach Telescoper to its maximum height of 15 feet, putting whatever tools he may need on the platform beforehand. He then walks up the steps to the first landing and climbs the ladder to reach the roomy platform where he is then able to work with full security.

Model PUL when telescoped down to its minimum height is only 6'8" high and 32" wide, allowing the machine to be taken through an ordinary doorway and onto freight elevators for transport to any part of the plant. Model PUL is equipped with basewheels and is fully portable.



THREE STANDARD MODELS

No. 1 Platform lift, 10 ft. 9 in.....	\$280.00
No. 2 Platform lift, 11 ft. 9 in.....	290.00
No. 3 Platform lift, 15 ft. 0 in.....	315.00

f.o.b. Chicago, freight allowed.

Other Hi-Reach Telescopers available
with platform lifts up to 60 feet.

Write for full details of Model PUL and larger Telescopers.

ECONOMY ENGINEERING COMPANY

4524 West Lake Street

• Chicago 12, Illinois

Engineered to move materials
with **SPEED**

SAFETY
EFFICIENCY



CM
HAND AND ELECTRIC
HOISTS

CM overhead materials handling units are designed to increase plant output and lower production costs by mechanizing and speeding the movement of materials. If you are improving or expanding your plant, it will pay you to check up on CM industrial hoists. Three of the most popular units in the CM line are...

The CYCLONE Model M High speed heavy duty hand hoist. 96% efficient. 1 ton capacity weighs only 35 pounds. Sealed in lifetime lubrication. Capacities from 1/4 ton up.



The COMET Portable, speedy, sturdy electric hoist. One-hand control. For plug in on 110, 220 or 440 volts. Capacities from 1/4 to 1 ton.

The METEOR Fast, heavy duty electric hoist. Airplane type cooling. Push button control. Single or two speed. Capacities from 1/4 ton up.

Write today for literature and the name of your local distributor who handles the complete line of CM overhead materials handling equipment.



CHISHOLM-MOORE

HOIST CORPORATION

(Affiliated with Columbus McKinnon Chain Corporation)

GENERAL OFFICES AND FACTORIES: TONAWANDA, N. Y.

SALES OFFICES: New York • Chicago • Cleveland • San Francisco • Los Angeles

"See Us at Booths 826-827 Materials Handling Exposition, Philadelphia—January 10-14."

As mentioned previously, sulkies, discs, cultivators, and other implements are taken directly from the drying ovens and sent to the shipping dock at the southeast corner of the building. A truck ramp, as shown in the layout, services both this dock and the initial raw stock receiving area. The parts are put in unsealed cartons, and taken by company truck to a branch warehouse located about a mile distant. Here final packing, steel banding and shipping are performed.

As part of our planned expansion program, a new and larger warehouse is to be built near our present one, and will be serviced by railroad. At that time, all final packing will be taken care of in our main plant, and our new building will be used only for storing and shipping.

So far, we have realized several important parts of our program. 1. Truck unloading time has been reduced from four hours to 30 minutes. 2. Accidents have been practically eliminated. 3. Jobs requiring heavy physical exertion have been minimized, resulting in better working conditions. 4. Raw stock is now adequately protected. 5. Production increases up to 200 per cent have already been indicated.

These are the principle operations in which the savings were effected that are told about by Mrs. Kohler at the beginning of this article. The size of an operation is no criterion. The small plant will invest less, and careful engineering and management can amortize the cost of the equipment in the same time as in a large plant. The real point is thus a matter of knowing what equipment is needed, bringing the layout up to date, predetermining the potential savings, then making the installation with a view to obtaining the most efficient material flow within the available space. This is the procedure we followed. It is continuing to pay us dividends through lower unit costs, better housekeeping, and a vastly improved safety record.



TAKE THE HAND OUT OF HANDLING!

with

Rapistan

MATERIAL FLOW

It's profitable!

Physical handling eats your profits! That's true whether you are a manufacturer, wholesaler or retailer . . . whether you are in industry, commerce or agriculture. Think it over. Check your receiving and shipping departments, your work-in-process and your storage. Is there too much handling? Not enough flow?

You can change that situation—with Rapistan Material Flow equipment. Your cost will be modest—your savings substantial. Rapistan is the most flexible line of gravity and power conveyors in the country. You'll get the right combination to fit your needs. Rapistan equipment is simple to install, can be delivered promptly. With it, you'll get all the benefits of recognized leadership in experience and quality. Best of all, Rapistan equipment will pay for itself quickly . . . and keep on making profits for you.

HERE'S PROOF of the benefits you will receive from Rapistan Material Flow equipment . . .

PRINTING FIRM cut weekly carloading from 90 to 8 man-hours . . . SUPER-MARKET eliminated storage confusion, reduced loading time 66% . . . BOTTLER'S Rapistan equipment paid for itself in one season . . . WAREHOUSE achieved "tremendous decrease in operating cost" . . . BUILDING SUPPLY DEALER saved $\frac{1}{3}$ loading cost, improved employee morale through lighter work . . . COSMETICS MANUFACTURER cut shipping room time and labor by $\frac{1}{3}$, simplified checking and packing operations.

• **WRITE US** about your handling problem. We'll tell you how Rapistan can help you.

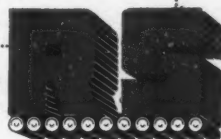


THE RAPIDS-STANDARD COMPANY, INC.

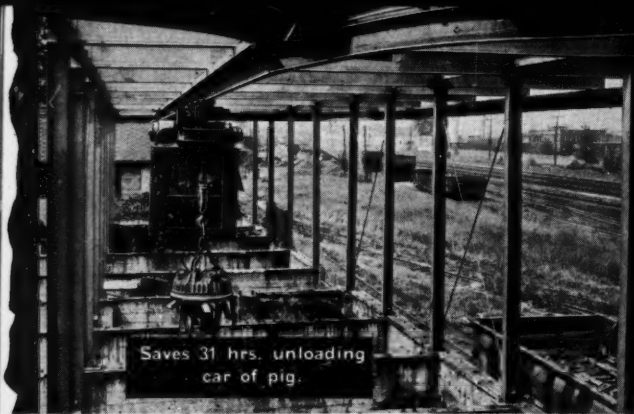
377 Rapistan Building

Grand Rapids 2, Mich.

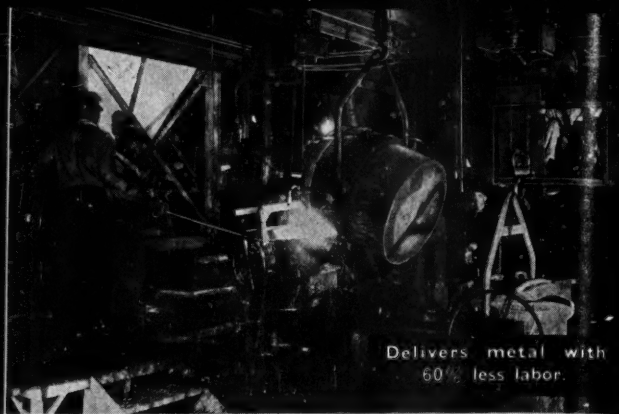
New Rapistan products will be introduced at the
Materials Handling Exposition, Philadelphia, January 10-14



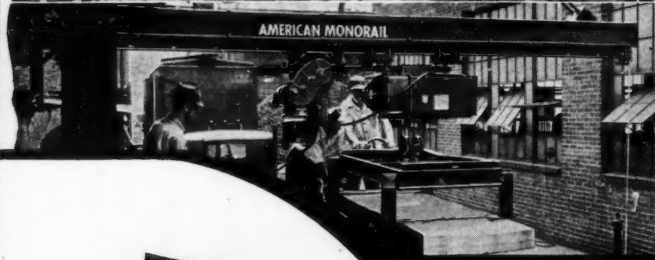
Representatives in
Principal Cities



Saves 31 hrs. unloading car of pig.

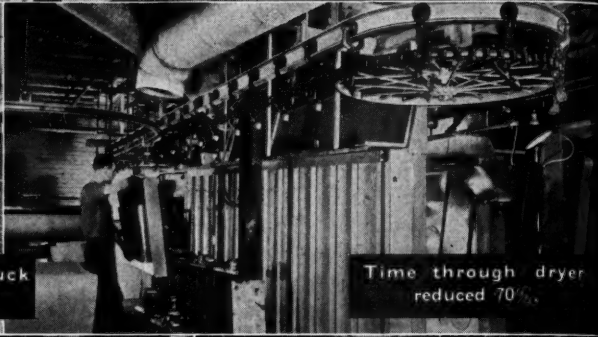


Delivers metal with 60% less labor.



AMERICAN MONORAIL

Saves \$20 per truck unloading sheet.



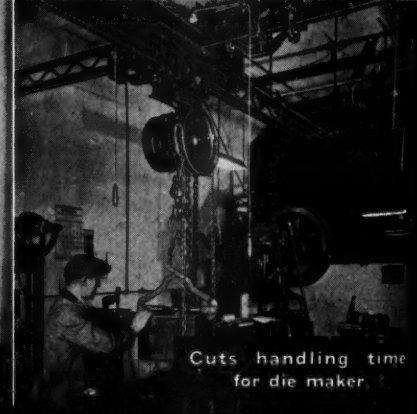
Time through dryer reduced 70%.



Send for Bulletin C-1. A 56-page book showing successful applications of American MonoRail Systems.

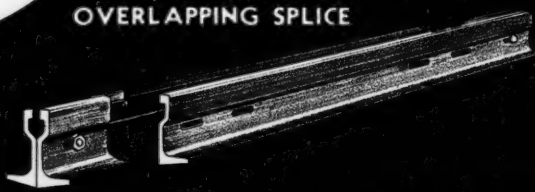


Greater roll capacity in blechery.

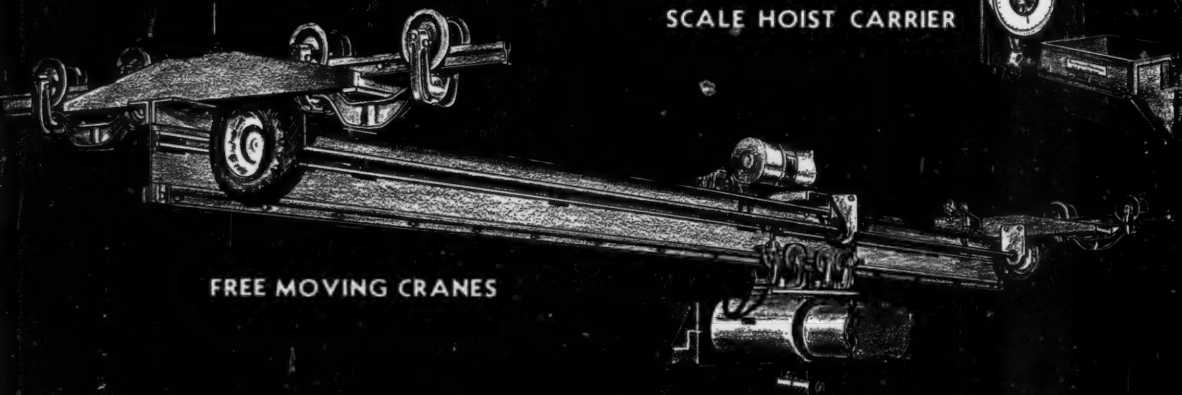


Cuts handling time for die maker.

OVERLAPPING SPLICE



SCALE HOIST CARRIER



FREE MOVING CRANES

AMERICAN MONORAIL

Equipment

**Increases Plant Capacity
Increases Production Pace
Conserves Skilled Labor
Reduces Damage and Loss**

AN AMERICAN MONORAIL SYSTEM permits compact arrangement—converts ceiling space to profitable use—overcomes congested conditions—reduces storage around machines—increases warehouse capacity. FOR PRODUCTION, it systematizes flow of material—provides process in motion and decreases idle time. FOR LABOR, it eliminates handling fatigue—reduces accidents with heavy loads—requires no full-time operator and permits work at

convenient heights. AN OVERHEAD HANDLING SYSTEM ends floor deterioration—assures safe handling of product—reduces damage in motion.

Whatever your handling problem may be, there is an American MonoRail system adaptable to it. From the simplest hand-operated unit to the most complicated fully automatic system, American MonoRail Engineers can suggest methods best suited to your problem.

THE AMERICAN **MONORAIL** COMPANY

13129 ATHENS AVE.

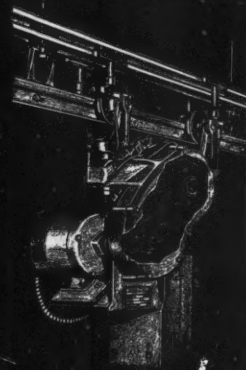
CLEVELAND 7, OHIO

EASY ROLL
TROLLEYS

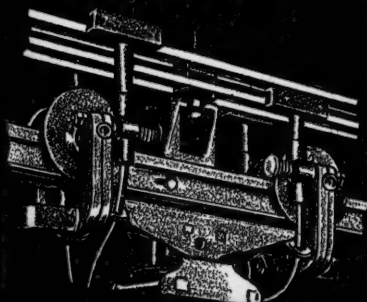


TWO-PIECE FORGED YOKES

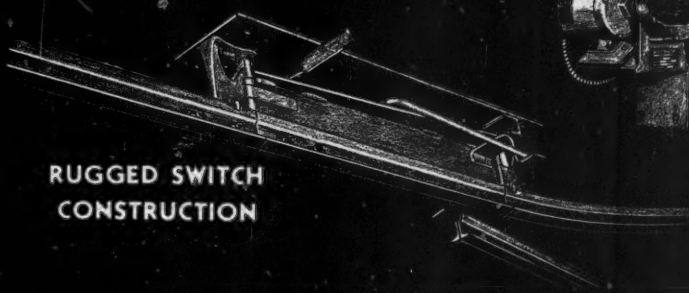
SPUR GEAR
MONOTRACTOR



COMPACT
ELECTRIFICATION



RUGGED SWITCH
CONSTRUCTION



THEY WILL MEET YOU . . .

(Continued from page 39)

son, assistant manager Chicago branch; T. G. Tynan, manager Boston branch; J. F. Carr, R. D. Harrington, V. C. Wynott, Boston Branch; J. B. Clark, H. L. Clement, J. E. Coleman, E. F. Kullberg, M. F. Smith, J. F. Massey, A. M. Ripley, New York Branch; P. A. Weaver, A. F. Tyralla, Philadelphia Branch; H. L. Hynson, H. Pryor, Washington Branch; C. H. Leet, J. M. Garroway, Pittsburgh Branch; W. M. Ely, G. V. Cripps, R. H. Welf, Cleveland Branch; G. E. Lindsay, Exide Batteries of Canada, Ltd.

ELIZABETH IRON WORKS, INC.

BOOTH NO. 828, 829

Harry Diamond, president; I. L. Chanenson, sales manager, specialties; L. Kates, development engineer.

ELWELL-PARKER ELECTRIC CO.

BOOTH NO. 615, 616, 713, 714

W. A. Meddick, sales manager; J. W. Coulton, assistant sales manager; C. B.

chief design engineer; J. Ackermann, assistant chief engineer; J. C. Erickson, chief engineer; Walter Woodard, engineer.

EQUIPMENT MANUFACTURING INC.

BOOTH NO. 37, 38

R. K. Degener, sales manager; A. J. Nagy, F. B. Hillger, sales engineers.

ERIE ENAMELING CO.

BOOTH NO. 35

H. R. Spencer, president; R. E. Braggins, vice president and manager; R. W. Brownfield, sales manager; John R. Chamberlin, district representative; Elmer Dodgson, district sales manager.

EUCLID CRANE & HOIST CO.

BOOTH NO. 732

H. H. Kumler, vice president and sales manager; Frank Lewis, Philadelphia office manager.

FAB-WELD CORP.

BOOTH 727

F. W. Bruckerl, president; G. J. Hanhauser, secretary and general manager; Robert Moore, chief engineer; Richard



FAIRBANKS CO.

BOOTH NO. 105

A. L. Naylor, executive vice president; J. S. Hanson, administrative assistant; R. G. Macbeth, sales promotion manager; E. T. Flanagan, manager New York and regional sales; C. E. Thyng, manager, Boston branch; A. T. Wendler, manager, Pittsburgh branch; H. D. Tenney, sales representative; H. J. Knapp, W. F. Guthrie, J. C. Valentine, G. W. Schlesier, W. T. Rogers, R. A. Fournier, A. W. Hoogs, N. F. Unmuth, I. C. Massaglia, R. Rupp, E. J. McVey, sales representatives.

FAULTLESS CASTER CO. BOOTH NO. 516

William H. Noelting, president; E. W. Fiske, manager Boston office; George Mittleman, manager New York office; J. H. Davis, manager North Carolina office; Fred H. Doerr, manager Cleveland office; Paul Blakely, special representative; Clarence B. Noelting, vice president.

FEDERAL TELEPHONE AND RADIO CORP.

BOOTH NO. 712

S. J. Powers, director, Selenium and Intelin Division; G. J. Collins, assistant sales manager; D. W. Potter, sales engineer; J. R. Bengel, sales engineer; C. W. Hawes, sales engineer; H. W. Kadell, S. E. Grimm, factory representatives.

(Turn to page 60)



W. A. Meddick



J. W. Coulton

Cook, export manager; G. H. Brown, assistant export manager; E. J. Abbe,



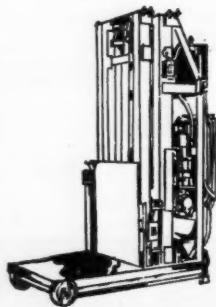
F. W. Bruckerl



G. J. Hanhauser

V. Lyon, production manager; Victor Schumacher, engineering department; Ronald Callaghan, engineering department.

Chicago's Shop Equipment Center



12—Automatic Electric Fork Lift Trucks—2000 lb., 3000 lb., 4000 lb., and 6000 lb. cap.

2—Mercury Electric Fork Lift Trucks—2000 lb. cap.—107" lift.

1—Clark Electric Fork Lift Truck—6000 lb. cap.—104" lift.

6—Elwell-Parker Elec. Fork Lift Trucks—Model E.R.X.P. 6—6000 lb. cap.—60" lift—with Edison batteries.

2—Automatic Electric Platform Trucks—Low Lifts—3000 lb. and 6000 lb. cap.

7—Automatic Transporters—4000 lb. cap.

2—Baker-Rauling Elec. Platform Trucks—Model E5-55—10,000 lb. cap.—1 Low Lift, 1 High Lift.

1—Baker Elec. Platform Truck—Low Lift—6000 lb. cap.

1—Yale Elec. Platform Truck—Low Lift—4000 lb. cap.

1—Elwell-Parker Gas Platform Truck—Low Lift—6000 lb. cap.

1—Elwell-Parker Elec. High Lift Platform Truck with Die Puller with Ready Power Unit—10,000 lb. cap.

5—Towmotor Gas Fork Lift Trucks—4000 lb., 6000 lb., 8000 lb. cap.

1—Mobilift Gas Fork Lift Truck—2000 lb. cap.—108" Lift.

75—New Surplus Hydraulic Lever Lift Hand Trucks—25" x 48" x 7"—3500 lb. cap.—\$137.50 ea.

9000 feet Gravity Roller Conveyor—8" - 10" - 12" - 14" - 16" - 18" - 20" - 24" - 40".

Portable Electric and Hand Elevators—500 lb. to 2500 lb. cap.

10—Die Tables—Mechanical and Hydraulic Lifts.

50—Bar Racks—Double Face Type.

All Types of Hand Lift and Two Wheel Hand Trucks.

New Surplus Fire Extinguishers—4 lb. and 15 lb.—Carbon Dioxide; 2½ gal. Foamite.

Shelving, Lockers, Shop Pans, Work Benches, Stools, Casters, Cabinets.

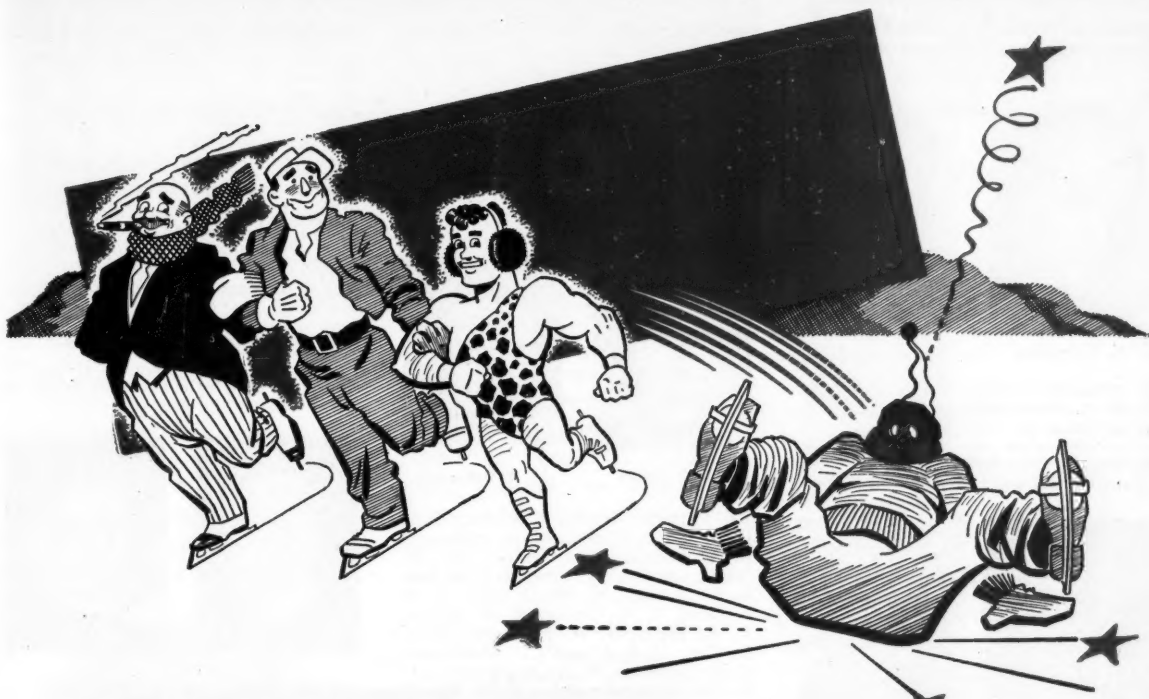
ALL USED EQUIPMENT RECONDITIONED & GUARANTEED

INDUSTRIAL HANDLING EQUIPMENT CO.

1225 W. MONROE ST.

MO. 6-8554

CHICAGO 7, ILLINOIS



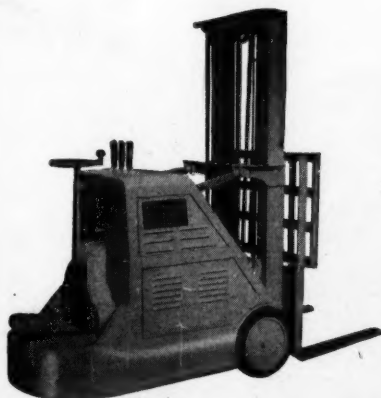
MOBILIFT'S OPERATING SPEED PUTS HANDLING COSTS "ON ICE"!

In the materials handling field speed is not a matter of "miles per hour" but "tons per day" of materials handled.

Mobilift is designed to speed up materials handling in warehouses and production plants. Its size and shorter turning radius enables it to operate easily in crowded areas. Its gasoline engine assures full-time, heavy-duty service. The fact that it has no gears to shift speeds operation—insures more trips per hour—more tonnage per day—less cost per ton.

Mobilift's tremendous savings are helping thousands of executives to lower their "break even point" and to increase their net profits. Many have even junked expensive handling equipment to take advantage of Mobilift operation.

Sign the coupon below and let us show you how the Mighty Midget can put handling costs "on ice."



MOBILIFT CORPORATION

835 S.E. Main St., Portland 14, Oregon

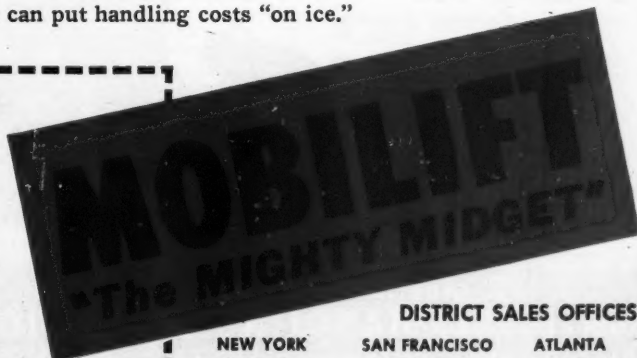
Please send me your illustrated folder on
Mobilift operation.

Name

Firm

Address

City State



DISTRICT SALES OFFICES

NEW YORK
CHICAGO

SAN FRANCISCO
LOS ANGELES

ATLANTA
DALLAS

HARRY J. FERGUSON CO. BOOTH NO. 136
Harry J. Ferguson, Sr., president;
Harry J. Ferguson, Jr., vice president;



H. J. Ferguson



H. J. Ferguson, Jr.

J. Richard Butler, sales manager; W. H. Roth, sales engineer; R. H. Roth, sales engineer.

FLOW BOOTH NO. 56, 119, 130
Manfred Schueler, Robert McKenna,



I. B. Hexter



L. P. Aurbach

Henry F. Eaton, Lester P. Aurbach, Irving B. Hexter, Harold Behm, Lee Haas, Lester Oppenheim.

GARLOCK PACKING CO. BOOTH NO. 834
L. P. Duggan, district manager; F. B. Campbell; F. B. Davis; V. R. Kleyla; A. C. Mohn; L. B. Snyder.

GENERAL ELECTRIC CO. BOOTH NO. 733, 734
C. A. Falkenau; S. W. Corbin; C. B. Elledge; J. W. Norris; R. A. Sandblom; J. J. Matson; M. A. deFerranti; S. Rif-



S. W. Corbin



M. A. DeFerranti

kin; C. P. Hamilton; J. T. Farrell; P. D. Ross; O. A. Tilton; W. M. Anthony; K. A. Andrew; E. D. Harrington; H. W. Bennett; C. E. Hamann; I. A. Lee; J. W. Brauns; C. MacDonald; R. N. Burgess; H. V. Green; R. H. Raube; R. B. McIlvain; A. P. Danz; E. G. Kniffen; C. S. Merrill; E. C. Brown; R. M. Gifford; W. E. Haydock; J. J. Freney; J. D. Gaughan; F. M. Krapf; O. J. Gilchrest; H. D. Moore.

GENEVA METAL WHEEL CO. BOOTH NO. 302
H. A. Carter, president; R. E. Sawyer, vice president, sales; H. A. Ford, sales engineer; R. B. Winchester, sales engineer.

A. J. GERRARD & CO. BOOTH NO. 518
J. M. Gerrard, president; D. F. Downing, executive vice-president; Gerald D. Brennan, eastern district sales manager; G. L. McDuell, sales representative.

GETMAN BROTHERS, MANUFACTURING DIVISION BOOTH NO. 131
D. E. Getman, manager; Merton Jones, chief engineer; Dan Chaffin, sales representative; Larry Flaherty, John Kortz, Michigan Industrial Truck Sales.

GLOBE HOIST CO. BOOTH NO. 216
F. W. Swanson, president; Harry D. Smith, vice president and director of



L. E. Porter



H. D. Smith

sales; L. E. Porter, manager, Industrial Division; J. M. Harlan, southeastern supervisor; Earl C. Keller, western supervisor.

(Turn to page 78)

How to Save "Muscle Money"

Industrial engineers claim that "22% of the cost of manufacturing on the average is due to the handling of materials."

If your "muscle money" is high, due to the lifting and dumping of free flowing materials, consider the Cesco Dumper.

Here's a machine that automatically lifts and dumps loads of any free flowing material up to 500 lbs. As many as 100 loads an hour! Bulk materials, bags, barrels, boxes, trucks may be dumped. Choice of heights. The Cesco Dumper is mounted on swivel casters for easy rolling inside or out of the plant. It's equipped with modern safety and automatic features.

Save "muscle money" and labor with a Cesco Dumper.

Write today for folder.



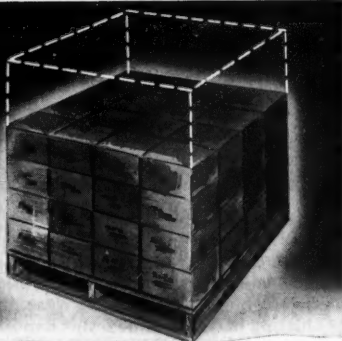
See the Cesco Dumper
MATERIALS HANDLING EXPOSITION
Philadelphia — January 10-14 — Booth 313



COLSON
EQUIPMENT &
SUPPLY CO.

1317 WILLOW STREET
LOS ANGELES 13, CALIFORNIA

is overspecification in pallets *Costing You Money?*



Records indicate that many pallet users are losing money through lumber and freight waste due to overspecification. For example, it has been found that pallets built to take a 4,000 lb. load were being used for a pallet job where 2,000 lb. load-strength would not only be sufficient, but would provide a high safety margin.

In Mor-Merit pallets, the correct specie of wood is carefully selected and the right amount used for your particular pallet job and specifications . . . based on accurate lumber research. The result is a quality pallet engineered to your individual requirements — without overspecification.

Send For Money-Saving Data On Pallet Construction Details

pallets to your specification

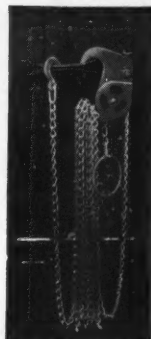
**FOR BETTER
PALLET-EXPORT BOXES
BLOCKING-CRATING . . .
DEAL WITH EXPERIENCED
LUMBERMEN**

MORGAN LUMBER SALES COMPANY

665 E. BROAD STREET, COLUMBUS, OHIO

WORLD'S EASIEST WAY TO OPEN ANY BOX CAR DOOR

NOLAN ONE MAN CAR DOOR OPENER



One man can open the most binding, balky box car door with the Nolan Car Door Opener. Get greater safety . . . speed loading and unloading schedules . . . order an ample supply to fill your needs today!

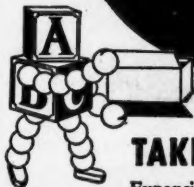
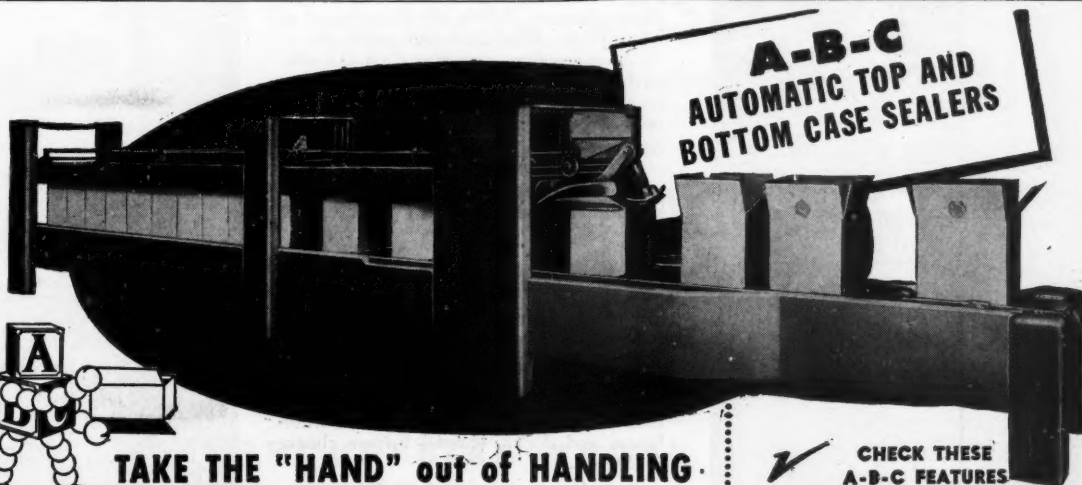
• No strained muscles. No slips or falls. No broken arms, legs or mashed fingers. No fatalities. No time wasted. No "gangs" needed. No time loss.

Write for free descriptive literature.

ONLY \$27.50 EACH
F. O. B. Bowerston

The Nolan Company

110 Pennsylvania Ave., Bowerston, Ohio



TAKE THE "HAND" out of HANDLING

Expensive sealing operations are done faster, more economically with the streamlined A-B-C Top and Bottom Case Sealer. A recent installation in one plant saved \$4000 the first year. Cases are sealed directly from the production line at speeds up to 60 cases per minute. It's all automatic. No operators required. Top inner flaps are tucked as bottom outer flaps are opened without disturbing contents of case. Glue is applied both top and bottom and outer flaps folded in place simultaneously. Compression unit with individual spring rollers applies even pressure to complete the sealing job. Unit can seal top flaps only or bottom flaps only. A-B-C specializes in building packaging machinery exclusively. Let an A-B-C specialist help solve your packaging problems. Write A-B-C PACKAGING MACHINE CORP., Dept. P6, Moberly, Mo.

A-B-C

PACKAGING MACHINE CORP.

MISSOURI

- CHECK THESE
A-B-C FEATURES**
- Built in power permits finger tip control
 - Simple, sturdy construction for minimum down time . . . low maintenance cost
 - Adjustable to wide range of case sizes by pressing a button
 - Glue applicator and compression unit supported at 4 points for even pressure
 - All main drives ball bearing equipped—geared head motors

OTHER A-B-C MODELS

Automatic Top Sealer • Automatic Bottom Sealer • Semi-Automatic Bottom Sealer • Hand Operated • Glue Coater • Case Filler

CHAMPIONS!...IN ALL CLASSES



Bantam: Trucloader

For fast action, unbeatable stamina and the versatility to handle any assignment in the busiest 1000-pound class, this hard-hitting little machine drops handling costs "for the count." Use it in factory, foundry and mill—in warehouse, stockroom and shipping dock.

*Gas-powered and electric
battery-powered models;
solid or pneumatic tires*



Lightweight: Clipper

This rugged unit takes on any load-opponent in the 1000, 1500, and 2000-pound classes—and has an extraordinary knock-out record against handling costs. You'll find Clippers busily at work in every branch of industry in which materials are handled.

*Gas-powered and electric
battery-powered models*



Middleweight: Carloader

By Industry's own enthusiastic acknowledgment, here's the Champion of Champions. *More Carloader trucks are on the job everywhere, every day, than any other fork-lift truck model ever built.* It's an astonishing combination of speed, maneuverability and rugged strength.

*Gas-powered—
3000, 4000, 5000-lb. capacities
Electric-battery-powered—
4000, 5000-lb. capacities*



Heavyweight: Utilitrac

For heavy assignments the Utilitrac wears the crown. This big fellow makes light work of lifting, moving and tiering loads weighing 6000 and 7000 pounds—and gives costs a sound beating. In metal industries, building-materials yards, warehouse and docks, shrewd buyers choose Utilitracs.

*Gas-powered and electric
battery-powered*



Outdoor Ace: Yardlift

In the Yardlift models, Clark provides strength, efficiency and durability on pneumatic tires. For handling operations that include outdoor storage and passage over rough surfaces, inside or out, the Yardlifts handle their loads swiftly, steadily, safely.

*Yardlift 20 — 2000-pound capacity
Yardlift 40 — 4000-pound capacity
Yardlift 60 — 6000-pound capacity*



CLARK

Gas-Powered

FORK TRUCKS

1000 - 7000 lbs. Capacity

Electric Battery-Powered

FORK TRUCKS

1000-7000 lbs. Capacity

Gas-Powered

TOWING TRACTORS

30-104 Tons on Trailers

Gas-Powered

TRUCTRACTORS

"Tip", "Dump" & "Shovel" Models

A Full Line of

HANDLING ATTACHMENTS

*Crane, Ram, Scoop, Revolving Head,
Paper Scoop, Barrel and Drum Carriers
and others ... including:*

*UNIVERSAL CLAMP... BARREL UP-ENDER
PUL-PAC... CLAMP-LIFT... HI-LO-STACK*

**INDUSTRIAL TRUCK DIVISION
CLARK EQUIPMENT COMPANY**

BATTLE CREEK 13, MICHIGAN

The current issue of CLARK Material Handling News is just off the press, write for it



FIELD PROVED

Unique 9 Part Fabric

Its patented construction is entirely unlike any other. Scores of wires are stranded in 9 parts, then into three parts.

Interlaced By Machine

On special precision machines, originated by Union Wire Rope engineers, three three-strand parts are so interlaced as to form a sling fabric so much stronger, with so much tougher wearing qualities and with so much more flexibility that you just have to see how much longer service it gives to believe it.

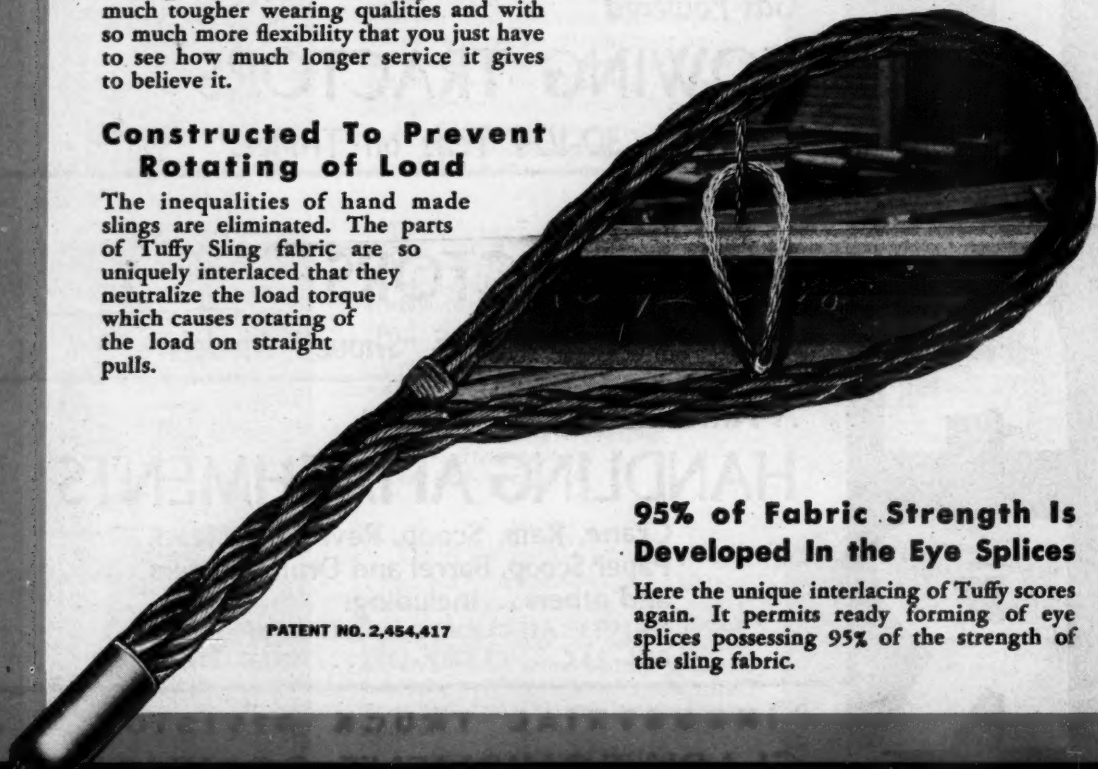
Constructed To Prevent Rotating of Load

The inequalities of hand made slings are eliminated. The parts of Tuffy Sling fabric are so uniquely interlaced that they neutralize the load torque which causes rotating of the load on straight pulls.



Tested Strength Is Twice Safe Working Load Limits

Metal tags on Tuffy Slings give their safe working load. Each sling or leg of a bridal sling is proof-tested to twice this safe working load.



95% of Fabric Strength Is Developed In the Eye Splices

Here the unique interlacing of Tuffy scores again. It permits ready forming of eye splices possessing 95% of the strength of the sling fabric.

PATENT NO. 2,454,417



Union Wire Rope

Super
TOUGH

Ultra
FLEXIBLE

REG. TRADE MARK



Tuffy Slings

Tuffy Sling Fabric also Available for Eye Splicing in Your Own Rigging Loft

If you are rigged for eye splicing your own slings, Tuffy Sling fabric is available on the reel. Your riggers will like the ease and speed of splicing that Tuffy interlaced construction affords.

Working any sling under load with knots or kinks in it is not recommended. But, sometimes it's unavoidable. Then is when the ultra-flexibility of Tuffy Slings stand you in good stead. Tuffy can take more of such punishment longer and you can straighten them out more often without material damage. The same is true of flattened eyes and because of the unique interlaced fabric construction, cutting of any one of the 9 strands will not result in stranding of the sling.

For a long time now, Tuffy Slings have proved they have the extra strength and ultra-flexibility to stand up during longer service on any kind of a load, under any kind of pull and with every type of hitch.

Try any one of the 9 factory packaged sizes. Prove their money-in-your-pocket worth to you to your own satisfaction.

UNION WIRE ROPE CORPORATION

2222 MANCHESTER AVE.

KANSAS CITY 3, MO.

☐ Send Facts on Tuffy Slings Including Safe Working Loads of 9 Sizes Which You Deliver as Complete Packages.

For Tuffy Slings—See Your Union Wire Rope Distributor (Listed in Yellow Section of Your Telephone Directory) and/or Send This Coupon.

FIRM NAME _____

BY _____ TITLE _____

ADDRESS _____

CITY _____ ZONE _____

STATE _____

Sea Horses RIDE ON CASTERED HORSES ... AND CONVEYORS

CASTERED TRUCKS CHAIN CONVEYORS



STORAGE RACK of lower units, left. Units on conveyor, right, have power head attached.

Overhead chain conveyors and castered trucks are integrated in this high-capacity assembly line for Sea Horse outboard motors. A well-designed parts storeroom layout helps maintain production schedules.

JOHNSON MOTORS, Waukegan, Illinois, makes its well-known Sea Horse outboard motors in five models, which range from 2-1/2 HP

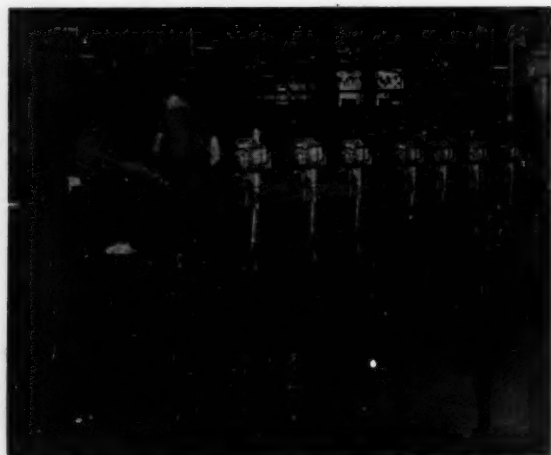
to 22 HP. The principal components used, in addition to electrical subassemblies, are die castings, bar stock parts, and some sand castings and stampings. The layout of the central storeroom is designed to maintain a scheduled supply of a large volume of small parts with the shortest hauls possible. Details on this exemplary supply function are given later.

All five models of Sea Horses are assembled on the same line (only a few of the parts are interchange-

able), and the handling system is set up in such a way so that several models can be run at the same time.

The assembly operation starts with two main subassemblies: 1. The lower unit, which is the propeller drive shaft and gear assembly. 2. The power head, which is the motor with the gas tank assembly. Several subassembly stations are located parallel to main assembly. The completed subassemblies are fed across metal tables to the main build line, an arrangement

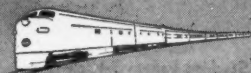
START of motor truck line. Greaser at left.



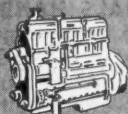
CASTERED TRUCKS with Sea Horses in trim line.



Aeroquip



RAILROADS



ENGINES



ROAD EQUIPMENT



HEAVY HIGHWAY EQUIPMENT



MARINE EQUIPMENT



BUSES



OIL FIELDS



FLEXIBLE HOSE LINES with DETACHABLE FITTINGS

Easily assembled in
your own shop.

Operating tempera-
tures from -40° to
 $+275^{\circ}$ F.

For use with hydrau-
lic fluids, lubricating
oils, water, air and
many other fluids.

SELF-SEALING COUPLINGS

Allow separation and
reconnection of fluid-
carrying lines without
loss of fluids or inclu-
sion of air. 1 coupling
takes the place of 2
hand-operated valves.



Aeroquip for Better Performance, Maintenance and Service

AEROQUIP CORPORATION

JACKSON, MICHIGAN

383 Warehouse Bldg., Hagerstown, Md. • 2012 N.E. 28th St., Fort Worth, Texas • 1051 North Hollywood Way, Burbank, Cal. • 1410 2nd Ave. So., Minneapolis 4 • In Canada:
72-74 Stafford Street, Toronto, Canada

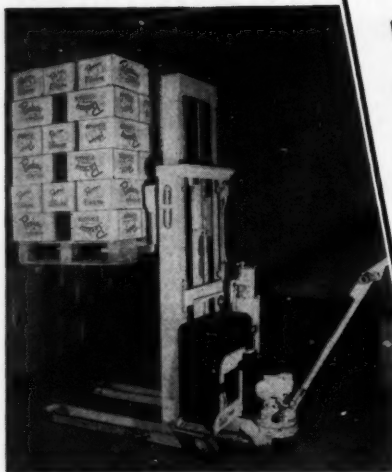
Aeroquip Products are Fully Protected by Patents in U. S. A. and Abroad

MOTO-TRUCS

*Two or more in
each of these plants of*

KRAFT FOODS COMPANY

*more
on order*



Placing Pallet Loads of 1500
Pounds by a Twist of the Wrist



CHICAGO, ILL.
AMARILLO, TEXAS
CINCINNATI, OHIO
CLEVELAND, OHIO
DETROIT, MICH.
FREEPORT, ILL.
GLENDALE, N. Y.
INDIANAPOLIS, IND.
JERSEY CITY, N. J.
KANSAS CITY, MO.
LITTLE ROCK, ARK.
LOUISVILLE, KY.
NASHVILLE, TENN.
OAKLAND, CAL.
PITTSBURGH, PA.
SALEM, VA.
LOS ANGELES, CAL.
SAN FRANCISCO, CAL.
ST. LOUIS, MO.
WASHINGTON, D. C.



A Dual Operation for Stacking Pallets 3-High

THE MATERIALS HANDLING ENGINEER of many large corporations prefers Moto-Trucs. They save space because of their shorter overall length, and their lighter weight enables operation on overloaded floors and elevators.

THE OPERATOR prefers Moto-Trucs for their mobility, ease in handling and safety of operation. Two speeds forward and reverse by easy grip roller type handle. Push buttons in ends of handle make lifting and lowering as easy as pushing a door bell.

THE MAINTENANCE MAN prefers Moto-Trucs for their simplicity in inspection and servicing.

THE MANAGEMENT is sold on Moto-Trucs because they cut down handling cost, save space, speed up production and pay for themselves in a short time.

**SEE OUR EXHIBIT
BOOTH 808
Materials Handling
Show
PHILADELPHIA
JAN. 10-14**

Write for Bulletin No. 49

The MOTO-TRUC Co., 1953 E. 59th St., Cleveland 3, Ohio

**• ORIGINATORS OF
MOTORIZED HAND LIFT TRUCKS**

which is suitable for small units which are relatively light in weight.

Overhead Processing Line. Reserve Conveyor

The lower units are assembled first, and upon completion are slid on a rack (from which they are suspended during assembly) toward the station where the power heads, or motors, are attached. A double-tier frame, incidentally, serves for intermediate storage in the event the gear shift assembly should exceed the supply of power heads.

When the two main subassemblies have been joined, the units are hung on an overhead chain conveyor, which travels out of the room to the following operations.

1. Washing. 2. Spray painting. 3. Drying. The conveyor hooks are of the swivel type, spaced 44 inches apart, so that the assemblies can be revolved during painting. This processing conveyor extends for about 200 feet in the assembly room, where five main assembly stations are located, three on one side and two on the other. Each of these stations can, if necessary, produce more than one model simultaneously, though under normal production requirements a single type will be run on each one at a given time. The conveyor hooks are adaptable to the contours of all models.

The return line of the chain conveyor brings the washed, painted and dried units to a point just north of the start of the assembly department. Here a vertical curve in the line lowers the assemblies for convenient removal by an operator, the greaser. After removal, each unit is greased, and is then transferred to the type of assembly truck shown in several of the photos.

But first a word about the overhead reserve conveyor, which parallels the main processing conveyor at the take-off point. This transfer station is a critical one from the production standpoint, since all subsequent assembly, testing and inspection stations depend on it for a constant supply of units. The

purpose of the reserve line is to fill any possible gaps that may occur. Surplus assemblies produced by the night shift are hung on this line, a closed circuit about 300 feet long. The conveyor dips across the aisle from the dip in the main conveyor, and the greaser thus can draw his supply from reserve when necessary.

Sea Horses on Castered Horses

All final assembly, testing and inspection operations are preformed while the Sea Horses ride the castered trucks. Notice that the vertically attached board that supports the motors is comparable to the stern of a boat. The units are thus hung on it (by use of the stern bracket) as they would be in use. In this position, all parts of the motors are protected against contact which would prove damaging to mechanism or the finish.

Each assembly truck has a capacity for three motors. As in the case of the processing conveyor hooks, the one type of truck carries any of the five models produced. Each carrier is mounted on four swivel casters for maximum maneuverability. The frame is of channel and angle iron construction. The 2" x

12" load-supporting board is bolted between angle irons. The truck has an over-all length of 66", and the distance from the floor to the top of the vertical board is 48 inches, which is an excellent working height. A bumper at each end of the trucks serves to avoid damage to the motors through accidental contacts. A slip-proof plate runs the full length on each side of the castered carriers. This serves as a standing board which supports the operators while assembling parts on top of the motors. A single two-inch channel track, bolted to the floor, guides the loaded vehicles past all assembly stations. Two casters on one side of the truck ride the channels, and thus an orderly "line" flow is maintained.

A tubular rack about eight feet long serves as a guard at the start of the assembly truck line, preventing passing vehicles from entering the area and bumping the trucks.

Castered Trucks Deliver to Packing

The channel track on which the trucks are advanced forms a U through the final assembly department. The carriers are moved but a few feet at a time from one station to the next. Now such parts

ANNEALING FURNACES CHARGED BY TRUCK

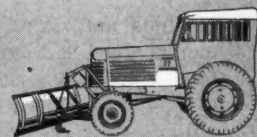
Charging of annealing furnaces at Erie Malleable Iron Co., Erie, Penna., with 60 containers of castings is completed in a fraction of the time required in previous practice. The powered truck charging has replaced manual handling



of the 3500-pound containers in and out of the kilns. Use of the truck at Erie Malleable Iron is extended to several operations. By means of a small platform placed over the truck's forks, it is a simple matter to convert it for use in pick-up, movement and deposit of skid boxes in the annealing department.—Courtesy, Electrical Industrial Truck Assn., Chicago, Ill.

Versatile **POWER**

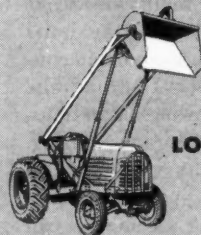
for Any Service . . . Any Season!



SNOW REMOVAL



SWEEPING



LOADING



HAULING

"The handiest thing on wheels" is what users say about an Oliver Industrial Wheel Tractor. In any plant . . . in any season . . . for any job where a fast-moving, hard-working mobile power unit is wanted, Oliver is the answer.

Hauling heavy loads about the storage yards or in the plant . . . loading or unloading free-flowing materials . . . sweeping . . . snow removal . . . helping construction work around the plant, these dependable tractors perform all these tasks plus a score of other useful jobs.

The basic tractor unit gives you plenty of mobile power for hauling or pushing. Add any or all of the various types of auxiliary equipment . . . loaders, snow plow, bulldozer, broom, etc., and at low cost, you have one unit that does everything . . . efficiently.

There's a size and type of Oliver Industrial Wheel Tractor to fit every need. Ask your local Oliver Industrial Dealer about their cost-cutting advantages . . . their powerful Fuel-Miser engine . . . their easy, comfortable operation. Or, if you prefer, write us direct.



The OLIVER Corporation

Industrial Division: 19300 Euclid Avenue, Cleveland 17, Ohio

are added as magnets, fly wheels, steering handles, tanks and starters. The parts are taken from trays, shop boxes and shelves on both sides of the line. Note that the assembly truck, specially designed by company engineers, gives access to the motors from either side with equal facility. The two-sided operation, in turn, speeds the assembly. As many as eight trucks may be advanced simultaneously as a train. (The castered carriers are piloted easily in the channel track.)

The U-shaped track ends just ahead of the test rooms, where each motor is tested individually. Beyond the test rooms, the trucks are advanced through another channel track, which extends past final trim operations. Propellers and filler caps are added, and each Sea Horse is stamped with a serial number. Clamped to the board of the castered carriers, the motors can be tilted at will as required in the different operations. After touchup comes final inspection at the end of the trim line.

The channel track now makes an S curve into the adjoining shipping department, where two packing stations are set up. At one of these, the heavier models are packed in wooden boxes. At the second station the two lighter models (2-1/2 HP and 5 HP) are packed in corrugated containers.

The two lighter models receive a protective strip and inner packing while the motors are still clamped on the trucks. Two operators work as a team. While one starts the packing, the second man sets up the carton and places the corrugated head block in the squared container. The motor is then loaded in an upside down position. Bracing is added around the lower unit, tool bags are inserted, and the bottom flaps are then sealed. The completed containers are disposed of on a 50-foot gravity roller conveyor for movement to the storage-shipping point. (In view of a heavy backlog of orders there is practically no storage in the pre-war sense.) The packing in the wooden boxes is done similarly, also with two men working as a

team. The empty assembly trucks are returned from packing via another channel track to the start of final assembly at the greasing station.

While specific production figures are a business secret, it is no secret that two shifts at Johnson Motors are turning out thousands of Sea Horses on the line described. The combination of the overhead chain conveyors and castered trucks is particularly well adapted to these products of complex contour.

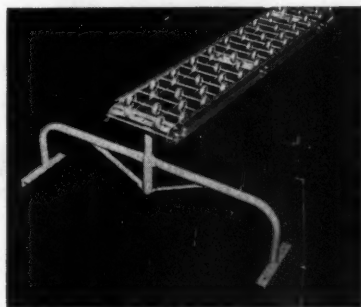
Model Storeroom Layout

As mentioned at the outset, behind this highly productive assembly

GREENHOUSE OVERPASS—This photo shows how a greenhouse operator solved a problem of too-narrow aisles. The flats are routed on an "overpass" gravity wheel conveyor line, which is mounted on a new type stand. It is



braced and may be bolted to the sides of a growing bench by 10° angles which are welded to the end of each leg. The



stand is 45" wide from leg to leg. A conveyor section height adjustment of 8" is possible with the new stand, and additional height may be obtained by the use of a telescopic tube.—Courtesy, Rapids Standard Co.

bly operation is a smoothly functioning central storeroom, which feeds a vast volume of small parts to the several subassembly and main assembly stations, indicated earlier. The component parts are issued to maintain daily production schedules. Since special precautions must be taken to avoid the slightest damage to precision parts, the materials are issued in trays, stands and racks. Most of these work carriers are designed to the contour of the machined parts. To assure a constant supply to assembly, the work carriers are maintained in duplicate sets. While one set is being unloaded in the assembly department, the corresponding set is being loaded in the storeroom. Any possible shortages are thus immediately caught.

Material is so located in the storeroom that it is accessible to the assembly stations for the various sizes of motors with the shortest travel distance possible. The layout provides three separate gates from storage to the assembly area, and stocks are maintained in each of the three sections so as to be nearest to the point of use. (Only a few items—such as magnets and fly wheels—are delivered from raw stores to final assembly directly by overhead chain conveyor.) The bulk of the component parts is transferred from stores to the point of use by castered racks.

The carefully planned supply storeroom plays a key role in the highly productive assembly operation for Sea Horse outboard motors. Excess floor traffic and congestion are thus avoided, and the needs of production are served effectively through this well-designed layout feature.

FOR YOUR CONVENIENCE

Use the three listings of exhibitors appearing in this issue. One shows booth locations, the second is by products, and the third one lists the personnel in attendance at the booths. See pages 26, 28 and 36.

All New

MATERIAL HANDLING EQUIPMENT

SOUNDLY ENGINEERED BY . . .

HAISS



HAISS DRAG TYPE CONVEYOR (Model 486)

Medium and heavy duty models for all sizes coal and coke. Ideal for permanent installation. Ask for bulletin No. 486.



HAISS HI-CAPACITY COAL LOADER (Model 75 WC)

Wheel or crawler mounted. Handles more than 5 tons per minute from pile to truck. Ask for bulletin No. 75 WC.



HAISS FLAT BELT CONVEYOR (Model 481)

For coal, coke, cinders, etc. Mounted on "V" or mast type truck with swivel wheels. Ask for bulletin No. 481.

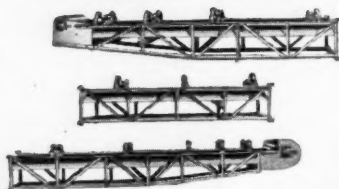


HAISS CAR UNLOADERS (Models 483-484)

Belt and drag types for low-cost undercar unloading from hopper bottom cars. Ask for bulletin No. 483-4.

HAISS SECTIONAL CONVEYOR (Model 487)

Made in individual sections for fast, easy movement of loose, bulk or packaged materials, horizontally or on an incline. Ask for bulletin No. CL48.



HAISS CLAMSHELL BUCKETS

Ideal for increasing crane capacity in coal yards. Available for rehandling and excavating. Ask for bulletin No. 248.



HAISS TROUGH CONVEYOR (Model 482)

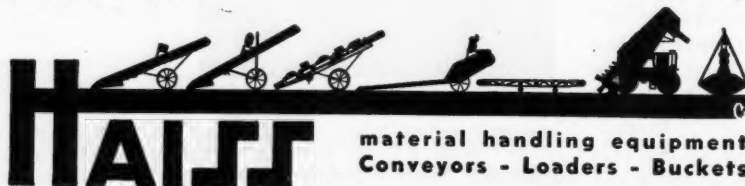
For buckwheat coal and all fine or abrasive materials. Has many exclusive Haiss features. Ask for bulletin No. 482.

Experienced Haiss representatives are located in all principal cities. For further information, write, phone or wire.

GEORGE HAISS MFG. CO., INC. division of PETTIBONE MULLIKEN CORP.

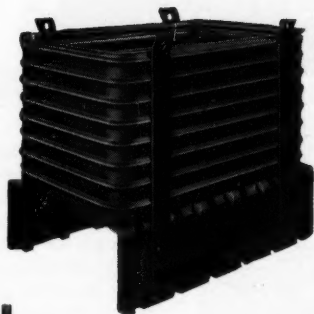
141st to 144th St. on Park Ave. NEW YORK 51, N. Y.
Phone Mott Haven 9-3650

4700 W. Division St. CHICAGO 51, ILL.
Phone Spaulding 2-9300

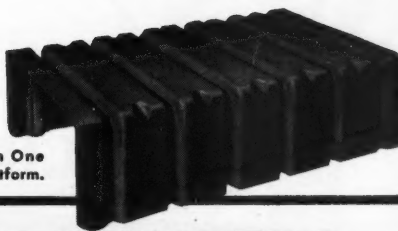


material handling equipment
Conveyors - Loaders - Buckets

Other Pettibone Mulliken Products: PMCO shovel dippers, clamshell buckets, highway speed loaders, slurry pumps, asphalt plants. HAISS coal, coke and aggregate handling conveyors; package conveyors; coal and material loaders; clamshell buckets • UNIVERSAL stone, gravel and sand crushing, screening and washing plants • BEARDSLEY & PIPER foundry sand conditioning equipment, sand slingers.



Type PB-120L Truscon Box and Platform with full length lifting lugs.



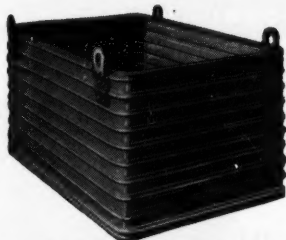
Type P-1. Truscon One Piece Steel Skid Platform.



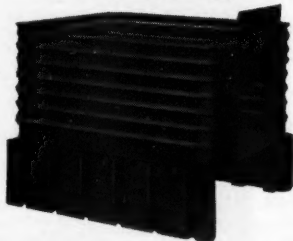
HEADQUARTERS FOR *Material Handling Equipment*

The success of modern production methods depends upon the efficiency with which materials and products in various stages of fabrication can be handled.

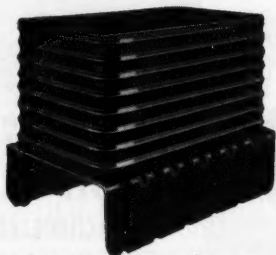
Truscon's Pressed Steel Division—nationally known for the quality of its products and the dependability of its service—is fully equipped and prepared to handle your material handling equipment requirements. The Pressed Steel Division's central location, moreover, assures efficient service for all your needs. Write for free catalog describing the complete line of Truscon Steel Boxes and Steel Skids.



Type B-80C Truscon Box Equipped for Crane Handling.



Type PB-650 Truscon Box and Platform with sliding End Door.



Type PB-120 Truscon Steel Box and Platform.

VISIT OUR EXHIBIT
BOOTH 427

**NATIONAL
MATERIALS HANDLING
SHOW**

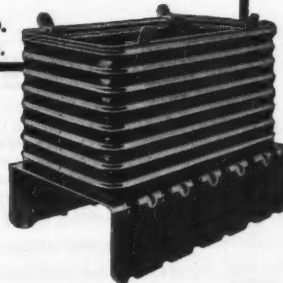
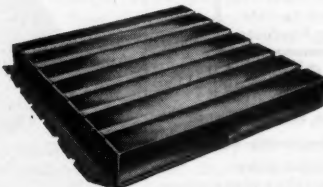
PHILADELPHIA -- JAN. 10-14, 1949

Reduce Your Costs

TRUSCON STEEL COMPANY

PRESSED STEEL DIVISION
6202 Truscon Ave. • Cleveland 4, O.
Subsidiary of Republic Steel Corp.

Truscon Double Face Steel Pallet.



Type PB-120T. Truscon Steel Box and Platform with Tying Lugs.

NEW! Service LUBRILIFT

FOR GREASING and MAINTAINING INDUSTRIAL TRUCKS

Easier...
Safer...
Faster...



This new lifter by Service speeds the servicing of all makes of fork lift trucks, industrial trailers and platform trucks. Built in 6000 pound and 12000 pound capacities, the Lubrilift elevates trucks to a height where lubrication, inspection and servicing may be done quicker, safer and more thoroughly.

Safety features of the ruggedly built Lubrilift include hooks which lock into the corner posts and safety-pipes which drop from the platform to the floor once the proper height is attained. "Dead-man" motor control during lifting and lowering is a further safety precaution. Its open platform provides complete accessibility for easy lubrication and maintenance work, a method of chocking truck wheels, a special support block on which counterweights may rest.

Shipped knocked down with complete erection instructions. Write for full details. Prompt shipment in both capacities.

See this New **LUBRILIFT**

AT BOOTH 520
MATERIALS HANDLING EXPOSITION
PHILADELPHIA • JANUARY 10th to 14th
Cost Saving Service Material Handling Products

SERVICE CASTER & TRUCK CORP.

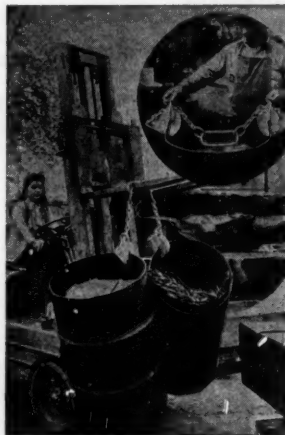


Executive Offices: Albion, Michigan
Plants at Albion, Michigan and Somerville 43, Mass.
Representatives in all Principal Cities

SEE YOUR CLASSIFIED TELEPHONE DIRECTORY FOR NEAREST DISTRIBUTOR

"GRANNY GRIPS"

"NO TEETH. BUT WHAT A BITE"



Practical and time saving for handling open top containers, sheet stock, boiler plate, or anything over which its jaws can be slipped. Quick and easy to use. Practical for use with lift trucks, overhead cranes, chain falls and jib cranes.

**SAVES TIME
PREVENTS INJURIES**

Write for Bulletin W-19



Safety Equipment for all Industries

INDUSTRIAL PRODUCTS COMPANY

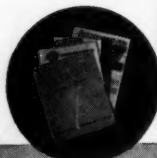
2823 N. FOURTH STREET • PHILADELPHIA 33, PA.

Detroit

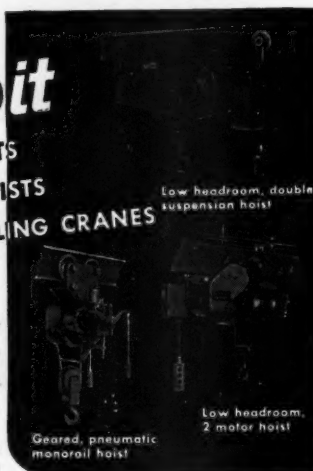
ELECTRIC HOISTS
PNEUMATIC HOISTS
ELECTRIC TRAVELING CRANES

A type for every purpose. Quick operating, efficient material handling units.

Give us an outline of your material handling problem. We will provide recommendations.



Ask for this bound set of bulletins on Detroit Hoists and Cranes

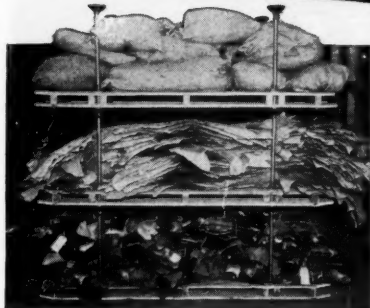


DETROIT HOIST

& MACHINE CO.

8216 Morrow St.
Detroit 11, Mich.

NOW!

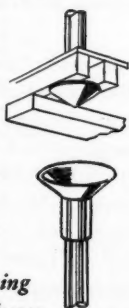


the *Flexible* PALTIER offers the steel Self-Alignment Cone*

which opens a new field in the palletized handling of materials, and supplies the first practical method of employing the many advantages of wood pallets in tiering or stacking materials of various shapes and consistencies without the use of racks.

NOW, WOOD PALLET STACKING IS SAFE, SURE, SIMPLE...

with the PALTIER Alignment Cone and the corresponding Nesting Cone designed to receive it. The PALTIER Steel Alignment Cone is attached at the four corners of the wood pallet with the desired clearance for entry. The Nesting Cone which fits over the end of the hollow steel tiering post, supplies a positive joint, tight enough to minimize swaying and yet permit unhampered removal of the upper pallets. Perfect alignment is always secured because Nesting Cones 4 1/4 inches in diameter conform in size and diameter with Alignment Cones and center the load in a direct line with the tiering posts.



*Eliminates uneven stacking
Keeps loads in exact balance
Gives equal distribution of weight
Transfers loads directly to floor*

The ideal method of storing materials subject to damage or compression by weight.

WRITE TODAY FOR COMPLETE INFORMATION

VISIT OUR EXHIBIT
BOOTH 816

NATIONAL
MATERIALS HANDLING
SHOW

*Patent Pending

THE PALTIER CORPORATION

53 WEST JACKSON BLVD.
CHICAGO 4, ILLINOIS

Men In The News

LES SCHRAUB, vice president and sales manager of the Union Wire



Rope Co. has announced changes and additions to the sales force to enlarge the company's field rope service. R. B. Board, formerly district manager at Chicago, has been selected sales manager of this phase of operations. His headquarters will be at the home office and factory in Kansas City. Other additions include: J. J. Lester, sales representative in Oklahoma; C. L. Conway, sales representative in Kansas; L. A. Davis in the states of Montana, North Dakota, South Dakota, Minnesota, and Wisconsin; D. E. Bedford in the states of Iowa and Nebraska; and D. B. Currence as district manager in Chicago.

THE promotion of G. B. Davis to sales manager of The Baker-Raulang Co. has been announced by D. L. Darnell, vice-president. This does not involve any change of duties as Davis has been in active charge of sales negotiations for some time. He became associated with the company in 1935 and joined the sales staff of The Baker Industrial Truck Division two years later.

G. A. GILBERTSON has joined the Frank G. Hough Co. as vice president, according to an announcement by Frank G. Hough, president and founder of the company. Gilbertson recently resigned as assistant sales manager of the Industrial Power Division of the International Harvester Co.

W. E. MADDEN has been appointed vice president of the George Haiss Mfg. Co. Inc. This was announced by E. J. Seifert, president of Pettibone Mulliken Corp., the parent corporation. Madden was sales manager of the conveyor division of Haiss last year and has been responsible for the development of the company's conveyors for coal, aggregates and package handling.

FRANK E. HOUCK, formerly Cleveland district sales manager of the Brainard Steel Co., has been appointed manager of sales, steel strapping division. Houck will make his headquarters at the home office, Warren, Ohio.

GILBERT W. CHAPMAN, vice president in charge of finance of The (Turn to page 106)

SEE! HEAR!

711

STAPLES per MINUTE

BOOTH 311

MATERIAL HANDLING SHOW



PERFECT STAPLES at DOUBLE SPEED Proves Inland Speed Sticher Superiority

Too fast for average day-to-day production? Yes! But stepped up to DOUBLE SPEED it demonstrates Speed-Sticher's perfect staple making.

Here's VISUAL, PUBLIC PROOF of Speed Stitches smooth wire feed and precision sticher-head parts. Think how easily and smoothly it will handle normal speed production.

It's a gruelling laboratory test—brought out from "under wraps". It's a "proving grounds" demonstration—with you personally in the grandstand.

There are 42 reasons for Speed Sticher superiority—but let BOOTH 311 eliminate all the words, all the claims, and show you in one convincing, conclusive reason... *proved performance!*

Yes, we have Catalogs and Folders
Pick yours up at Booth 311

INLAND
WIRE PRODUCTS COMPANY
3947 South Lowe Avenue, Chicago 9, Illinois

Inland SPEED FLO "Uni-Draw" Wire contributes its share to the Booth 311 High Speed Demonstration. This improved stitching wire will help you improve the performance of your present stitching machine. Send for Folder.

ON THE



PALLET

NEWS • VIEWS • TRENDS

THE Baker Industrial Truck Division of The Baker-Raulang Co. recently completed its first direct shipment from Cleveland to a foreign port. Although not the first export shipment made by the company, it represented the initial effort from the inland port located over 500 miles from the nearest ocean. The freight consisted of a 125-inch box containing a fork truck, capable of a 176-inch lift, to be used by a Holland export company for warehousing. At present, there are four lines operating regularly between Cleveland and north European ports.

THE Lamson Corp. has taken over the exclusive rights for the manufacture, production and sale of the Automatic Pallet Loader, which was developed by Production Aids, Inc. Since this equipment is one of the outstanding developments in the conveyor field in recent years, Lamson has found it expedient to establish a separate division for its promotion and sale.

TO GIVE company officials a more intimate picture of business conditions in important industrial areas, the board of directors of Whiting Corp. is planning to hold some of its meetings in various cities. The first of these regional meetings was held in Pittsburgh, November 16, at the William Penn Hotel. General Thomas S. Hammond, board chairman, presided. An evening dinner provided directors and customers with an opportunity for firsthand interchange of current trade information.

THE first gas turbine-electric locomotive to be built and operated in the United States, an Alco-GE 4500-hp unit, began track tests recently at the General Electric plant in Erie. The locomotive will be placed in operation on a demonstration basis by the Union Pacific Railroad next spring, after preliminary tests have been completed. Spokesmen for the American Locomotive and General Electric companies stressed the developmental status of the new locomotive.

THE new address of Hughes-Keenan Corp. will be Delaware, Ohio. The manufacturer of Roustabout Cranes, and tractor-mounted load-handlers has moved its plant in order to bring together two of the company's three divisions to facilitate cooperation and management. The third division is scheduled for later movement.

THE Clark Equipment Co. has been selected by the National Executive Committee of the American Legion to receive its annual citation as the outstanding employer in Michigan for giving "exceptional service in the employment of veterans, both physically able and disabled or handicapped." All four of the Clark plants—Battle Creek, Buchanan, Berrien Springs and Jackson—are covered by the award.

A FORMER Philadelphia vacuum cleaner salesman has invented a new cleaner which picks dirt and dust up through a hose and blows it down the sink drain, ridding the housewife of the bothersome chore of emptying the vacuum cleaner bag. Arthur N. McGuire, a tool designer, thinks that his new machine incorporates all the improvements housewives told him they wanted when he sold the more conventional cleaners door-to-door. McGuire's cleaner operates on an entirely new principle. Dirt picked up off floors and rugs is combined with a stream of water and washed down the sink drain.

A SERIES of one-week "schools" to teach better techniques of storage battery maintenance and repair to foremen, supervisors and engineers in those industries which employ lead-acid batteries for motive power, was inaugurated by Gould Storage Battery Corp. in Trenton, N. J. Ten representatives from five of the largest coal mining enterprises in the country heard nine lecturers, tackled three do-it-with-your-own-hands laboratory projects, witnessed two major demonstrations, stood both written and oral examinations, and received diplomas during five full days of the course. The lectures given covered: storage battery theory; battery design; electrical theory; battery layout; charging methods; maintenance procedure; evaluating secondary haulage; and handling batteries underground. Executives interested in sending key maintenance personnel to future Gould Battery courses in Trenton should correspond with Mr. Gilruth for arrangement of dates and subject emphasis.

H. D. HORTON, newly elected president of the American Trucking Associations, Inc., will be the featured speaker at the eighth annual convention of the Truck-Trailer Manufacturers Association. The convention is to be held at the Edgewater Gulf Hotel, Edgewater Park, Miss., January 17, 18, and 19.

How Shipper Saves \$30 per car

Acme methods and Unit-Load Band help chemical shipper roll up substantial savings in time and materials on car load shipments.

Eastern Gas and Fuel Associates, Everett, Massachusetts, market a by-product of coal (ammonium thiocyanate flakes) widely used in the chemical industry.

Carload shipments call for loadings of two hundred barrels, 200 pounds each, double and triple decked.

By using Acme full-floating load methods and Acme Unit-Load Band in place of the previous wood bracing method, this company saves approximately thirty dollars in time and materials on every car shipped.

This is just one instance of our ability to help get substantial savings for shippers. Whether you ship by the bag, box, or barrel, ask an Acme Shipping Specialist how we can help you. Or clip and mail the coupon for free booklet of actual case histories.

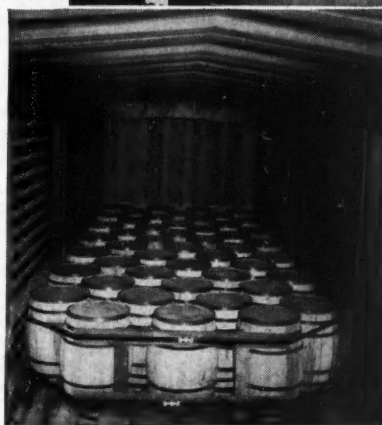
STRAPPING DIVISION

ACME STEEL COMPANY

Acme Steelstrap

NEW YORK 17 ATLANTA CHICAGO 8 LOS ANGELES 11

FLOW • JANUARY, 1949



ACME FULL-FLOATING LOAD METHODS

with Acme Unit-Load Band mean an easier "ride" for shipments, less shock damage in transit, safe arrivals. These pictures show double-decked carload of barrels of ammonium thiocyanate flakes on its way to be used in making insecticides, adhesives, and dye fixatives.

MAIL THIS COUPON NOW

Acme Steel Company, Dept. F-19.
2838 Archer Avenue, Chicago 8, Illinois
Please send me a free copy of your booklet,
"SAVINGS IN SHIPPING."

Name _____

Company _____

Address _____

City _____ Zone _____ State _____



Doc Steelstrap

ACME STEEL CO.
CHICAGO



Buy at the Sign of

THE "MASTER" LINE

of Industrial
Handling Equipment

Designed, Engineered, Manufactured
and Distributed by

LEWIS-SHEPARD

NATIONAL
MATERIALS
HANDLING
SHOW

PHILADELPHIA
JAN. 10-14, 1949

Welcome
to the
L-S
Booth

Put L-S "Mechanized Muscles" at work in
Your plant. They Multiply Manpower, slash
your cost of doing business, make you an-
other of the hundreds of thousands of
friends of THE "MASTER" LINE.

No matter what your plant layout, your
width of aisles, your type of materials, your
storage or production set-up . . . there's a
"MASTER" LINE product or combination of
products to solve your handling problem
and pay for itself over and over again. Let's
get together.

Send for this
86 page
Catalog of
THE
"MASTER"
LINE



INDUSTRIAL TRUCKS



"JACKSTACKER"



"JACKLIFT"
POWER MODEL



HYDRAULICS



"JACKLIFT"



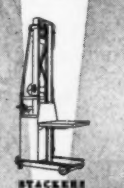
"REDILIFT"



PLATFORM



FLOOR TRUCKS



STACKERS

LEWIS-SHEPARD

PRODUCTS INCORPORATED

115 WALNUT STREET

WATERTOWN 72, MASS.

REPRESENTATIVE IN PRINCIPAL CITIES CONSULT YOUR PHONE DIRECTORY

ESTABLISHED
1915

THEY WILL MEET YOU . . .

(Continued from page 60)

GOULD STORAGE BATTERY CORPORATION
BOOTH NO. 728

M. W. Heinritz, vice president; W. W. Helsey, regional manager; H. S. Carlsen, assistant to vice president; F. A. Miller, district manager; F. G. Teufel, regional manager; R. C. Cragg, regional manager; R. H. Newbury, regional manager; C. W. Hanna, distribution manager; W. A. Furst, district representative; J. A. Gilruth, sales promotion manager; R. E. Kinnen; J. P. Kelly, M. D. Tracy, R. M. Jaccard, district representatives.

J. W. GREER CO. BOOTH NO. 315
Don S. Greer, vice president; Charles R. Becker, Rod Grace, Stanley Piowski, sales engineers.

HANDLING DEVICES CO., INC.
BOOTH NO. 320

Alex W. Moffat, president; John F. Sherman, Jr., treasurer; Howard B. Sprague, salesman.

HARNISCHFEGGER CORP.
BOOTH NO. 425, 426

E. T. Slackford, sales promotion and advertising manager.

HARRINGTON CO. BOOTH NO. 303
A. M. Harrington, president and general manager; J. A. Harrington, treasurer and plant manager; F. L. Evoy, secretary and assistant sales manager; D. Black, plant sales; Messrs. Nelson, Conley and Kelly, field sales.

HERTNER ELECTRIC CO. BOOTH NO. 224
R. C. Neiswander, sales manager, Cleveland; R. W. Brisky, sales engi-



R. C. Neiswander

F. D. McCann

neer, Cleveland; F. D. McCann, sales representative, New York; J. P. Grech, sales representative, New York; Wm. Smart, service engineer; Cleveland.

FRED HILL & SON CO. BOOTH NO. 715
Wm. Mann, Jr., general manager; W. W. Ford, Sr., sales manager.

FRANK G. HOUGH CO. BOOTH NO. 606
G. A. Gilbertson, vice president; C. E.



R. P. Wiggers

C. E. Killebrew

Killebrew, sales manager; R. P. Wiggers, advertising manager.



HYDRAULIC EQUIPMENT CO.
BOOTH NO. 731
 C. F. Rayment, sales manager; R. A. Andrews, E. C. Davis, R. F. Hodgson, C. L. Paxton, sales engineers.

HYSTER CO.
BOOTH NO. 428, 429, 430, 506, 507, 508
 E. G. Swigert, president; E. C. Caldwell, vice president and general manager; F. L. Ross, vice president eastern division; P. H. Hill, general sales manager.



E. G. Swigert



P. H. Hill

ager; C. H. Collier, Jr., eastern division sales manager; R. M. Ronald, western division sales manager; D. G. Johnson, sales promotion manager; H. M. White, Jr., show manager.

IDEAL STENCIL MACHINE CO.
BOOTH NO. 4, 5
 R. F. Alexander; R. F. Alexander, Jr.; Charles Geo. Beck.

INDUSTRIAL EQUIPMENT CO.
BOOTH NO. 413, 414
 P. W. Pearson, president.

INDUSTRIAL TIRE & WHEEL CO., INC.
BOOTH NO. 45
 James E. Little, president; D. B. McIlwain, sales manager; R. M. Adams, division manager; Lee Williams, division manager; Walter G. Overman, division manager; E. A. Evoy, eastern representative.

INDUSTRIAL WASHING MACHINE CORP.
BOOTH NO. 336

Howard M. Sadwith, president; Beverly C. Sadwith, vice president.



H. M. Sadwith

INLAND WIRE PRODUCTS CO.
BOOTH NO. 311
 E. A. Johnson, Sr., president; E. A. Johnson, Jr., sales manager; Albert Moore, field manager; Orville Tubbs, engineer; R. B. Lucks, vice president; Ted Papuga, serviceman; J. H. Slingerland, advertising manager.

More Power to You!

Through LEWIS-SHEPARD ENGINEERING LEADERSHIP

It's NEW

"IT LIFTS
AND
LOWERS
AS
IT HAULS"

4000 LB. CAPACITY
 Telescopic Straddle Type
"JACKSTACKER"

See It
At The

**NATIONAL
MATERIALS
HANDLING
SHOW**
 PHILADELPHIA
 JAN 10-14 1949



"JACKSTACKER" ELECTRIC TIERING TRUCK

Capacities to 4000 lbs. No Similar Type Truck
 Carries 4000 lb. Pay Load. Load always over Wheels

- TO MOVE AND STACK UNIT LOADS on all skids and pallets. 4 types: Straddle; Counterweight; Open end Base; Platform.
- Telescopic, High Stacking feature (available all models) allows easy passage under door frames and other obstructions.
- Takes Much Less Room . . . and light dead weight of "Jack-Stacker" makes it ideal where floors will not support Fork Trucks or cramped quarters make them impractical. The "Jack-Stacker" means **NARROWER AISLES** for you.
- All Controls in Handle Head — 2 speeds forward and reverse, lifting, lowering, horn and lock, plus instant smooth-action electric brake, constantly applied type. Controls operate with handle any position. No need to halt "Jack-Stacker" to raise or lower carriage. No similar type truck has this basic advantage. "It lifts and lowers as it hauls".
- Master Drive Unit, mounted on articulated linkage, gives good traction over ramps, sills, uneven floors. Only takes 20 minutes to change Master Drive Unit assembly.

SEND
for
BULLETIN
No. 95

Designers, Engineers, Manufacturers of over 250 standard and variable types of Industrial Handling Equipment
 Let us help you save money.
 Write or Wire.




THE "MASTER" LINE of
Industrial Handling Equipment

LEWIS-SHEPARD PRODUCTS INC.

115 WALNUT ST., WATERTOWN 72, MASS.

Midwest Plant: Crawfordsville, Ind.

REPRESENTATIVES IN PRINCIPAL CITIES  CONSULT YOUR PHONE DIRECTORY

OPEN FACE
PALLET TYPE

PLATFORM TYPE

EST. 1915

TRAVELING HOISTS WORK BETTER When Fed Power by the New Type "YS" **APPLETON REELITE**

TRADE MARK



NEOPRENE
Jacketed Cable for
GREATER SAFETY, LONGER WEAR

**Automatically Takes Up,
Pays Out Conductor Cable
No Exposed Current Collectors, Trolleys
or Wires**

RATING: 15 Amperes 550 Volts, A. C. 250 Volts, D. C.

Expertly designed, sturdily built, to supply smooth, safe uninterrupted power to traveling hoists. Swivel base permits cord to be fed in any direction; thus, mounted

at the mid-point, a type "YS" Reelite with 45 feet of cord serves 90 feet of track, straight or with one or more bends. Excess cable always reeled up safely out of the way, where it cannot tangle, kink or break.

Typical of fine construction throughout is the Dupont Neoprene jacketed conductor cable . . . tougher, longer-wearing and resistant to oil, heat, acid fumes and other conditions which cause ordinary cable to deteriorate.

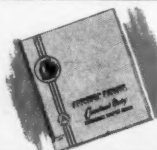
Solderless line connections are made direct to terminal block. Oil-less bearings at all points of rotation.

Sold Through Electrical Wholesalers

APPLETON ELECTRIC COMPANY
1728 Wellington Ave. • Chicago 13, Illinois
Branch Offices and Resident Representatives
in all Principal Markets

SEND TODAY!

Write for your free copy of 50-page Bulletin No. 504 which gives complete information on all Reelites—Portable, Constant Duty and special types. Or see Sweet's File, Page 24/22.



A P P L E T O N

CONDUIT FITTINGS • OUTLET AND SWITCH BOXES • EXPLOSION-PROOF FITTINGS • REELITES

INSLEY MANUFACTURING CORP.
BOOTH NO. 709
D. H. McNaughton, assistant sales manager; J. R. Elliott, sales engineer.

IRONBOUND BOX & LUMBER CO.
BOOTH NO. 807
C. H. Strauss, sales manager; H. N. Lesser, assistant sales manager.

ISLAND EQUIPMENT CORP.
BOOTH NO. 207
John W. Stiles, general manager; Denny Bohn, production manager;



D. Bohn



J. W. Stiles

Helen R. Frankie, Donald Stiles, John Durkee, Wm. Keim, Arthur Haar, Nick Gross, M. Van Billiard, Geo. Mercier, Earl Whitaker, Marshall Smith.

JOYCE-CRIDLAND CO BOOTH NO. 144
Huston Brown, vice president; G. Duckwall, advertising manager.

KALAMAZOO MANUFACTURING CO.
BOOTH NO. 334, 335
J. H. Tuttle, president; R. E. Keller, vice president; George E. Monroe, treasurer; Henry E. Vogel, salesman; George W. Hoover, Howard Mull, Oscar Youngquist, salesman.

KAYEL PRODUCTS CORP BOOTH NO. 36

KEEN MANUFACTURING CO.
BOOTH NO. 104
J. C. Chenette, president; Leo E. Chenette, sales manager.

L & H WOOD MFG. CO. BOOTH NO. 39
Robert B. Lindbert, owner; Vance T. Keeney, general manager.

LANHAM CO. BOOTH NO. 510
C. T. Lanham, president; P. B. Lanham, Jr., secretary and treasurer; Robert Piatt, sales.

LANSING CO. BOOTH NO. 40
S. E. Race, treasurer; L. A. Rowell, New York manager; F. S. Miller, Philadelphia manager.

LANSING INDUSTRIAL SALES CO.
BOOTH NO. 21
W. O. McQueary.

R. B. LATCH ENGINEERING CO.
BOOTH NO. 18



R. B. Latch

R. B. Latch, president; C. H. Wolf, general manager.

YOUR KEY TO THE SHOW

R. G. LETOURNEAU, INC.
BOOTH NO. 809, 810, 811, 812
R. L. LeTourneau, Louis A. Flora, C. F. Perry, R. H. Evans and other representatives of the organization will be "meeting you."



R. L. LeTourneau
G. C. Summers
representatives of the organization will be "meeting you."

G. B. LEWIS CO. BOOTH NO. 701
Steve Parks, general sales manager; H. Riedemann, sales manager, Container division; Milton Frater, salesman; Dan Milunovich, plant manager.

LEWIS-SHEPARD PRODUCTS INC.
BOOTH NO. 625, 626, 627, 702, 703, 704
A. L. Lewis, president; F. J. Shepard, Jr., treasurer; Lyman E. Nivling, general sales manager; Roland D. Jones; John P. Ascher; Howard M. Palmer;



A. L. Lewis **L. E. Nivling**
John H. Lewis; Clark Shepard; Laurence B. Barnard; Frank Garbarino; Philip C. Cook; William T. Cushing; James Miller, plant manager of Crawfordville, Indiana plant.

LIFT TRUCKS, INC. BOOTH NO. 114

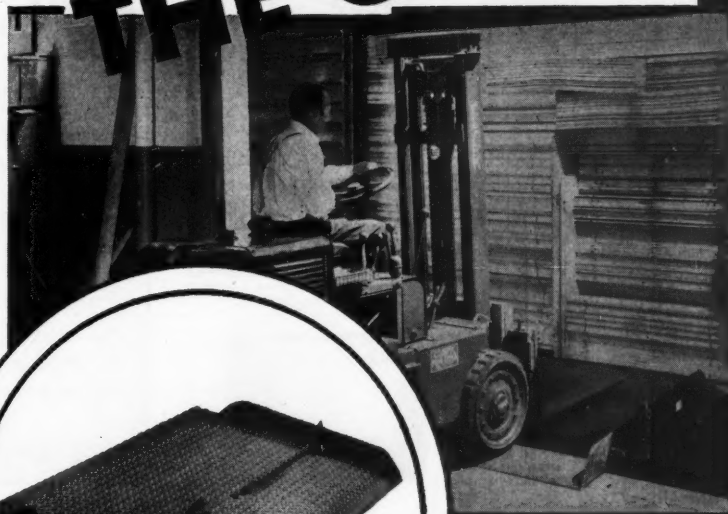


W. C. Stuebing

W. C. Stuebing, president; W. C. Stuebing, Jr., vice president; A. R. Heller, purchasing agent; A. C. Timmons, assistant sales manager; A. W. Aldemeyer, chief engineer; E. S. Goetz, engineer.

LULL MANUFACTURING CO.
BOOTH NO. 723, 724, 725
L. H. Lull, president; H. M. Conklin, assistant manager; R. H. Smallwood,

"BRIDGE THE GAP"



with **PENCO** HEAVY DUTY *Safety Type* BRIDGE RAMP

Engineering Bulletin

No. 470-F

Available on Request

- Permits handling heavy loads with speed, economy and safety
- Fits and stays put
- Is sturdily constructed
- One man operation
- 15,000 lb. capacity
- Complies with all safety regulations

Distributorships Available

PALLET ENGINEERING CO.

725 SECOND ST., SAN FRANCISCO 7, CALIF.

STEELBINDER

...took these strapping jobs out of the problem class!



BRAKE SHOES bound on pallets with $\frac{3}{4}$ " Steelbinder Steel Strapping save vital space in the car and in the storage room, and speed up loading and unloading.

SHOVELS now trimly bound with Steelbinder steel strap have stopped shipping losses suffered when old rope ties were used.



STOVES and other enamel surface products are protected against chipping and scuffing by soft-surfaced FIBER- and STEEL strap applied with the Steelbinder tool.



ASBESTOS insulation on these pipes is a "natural" for the Steelbinder. Special stainless steel, monel, copperclad or brass strapping available for such applications.



THE versatility of the Steelbinder Tool and the unequalled variety of sizes and types of strapping this one tool handles may well be the answer you are seeking to your strapping problems. An A. J. Gerrard Strap Man will be glad to help you. Look him up now in your local classified phone directory.

The Versatile STEELBINDER

The only strapping tool that ties any size or shape object with four sizes of strap. It does the whole job—you don't need a special tool.

Mail this coupon!

Send free . . .

- ☐ Send free, Steelbinder and Bulkbinder folders
- ☐ Our packing problem is (name of "problem" product)

We'd like to be shown how Steelbinder works on both product and plant maintenance strapping.

Company _____

Address _____

Attention of _____

ONE-UNIT Strapping Outfit, everything you need to tie a tighter tie on anything you ship, store or repair. Ask about it!



482



A. J. Gerrard & Co.

1950-A Hawthorne Ave.

(Chicago Suburb)

Melrose Park, Ill.

BUT!

THE

NEW

**COBURN FOSTER
UNITIZED
CONVEYORS
PACE THE HUM
OF ACTIVITY IN
PACKAGE
HANDLING**



HEAVE HO!
IS OUT OF TUNE

Powered effort at push button control. Pre-fabricated for easy erection. Interchangeable parts; sections may be added or changed. Our volume production assures low cost. Prompt deliveries from stock. Contact us with your problems of cutting handling costs.

DEALERS AND ENGINEERS

Communicate with us regarding this new fast moving profitable line of Conveyors. No engineering required. Installation drawings and literature furnished.

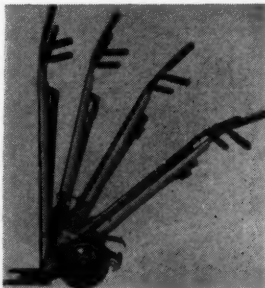
COBURN-FOSTER CONVEYOR CO., INC.

9354 S. EWING AVE.

CHICAGO 17, ILL.

SEE IT IN ACTION At The Exposition

"Efficiency Handling Reduces Cost"



KEEN'S new "EHRC"

THE NEWEST THING

IN MATERIAL

MOVEMENT SINCE

THE WHEEL

This remarkable new industrial handtruck is the result of 8 years of constant research to develop a moving device to handle barrels, stacks of boxes, bags, etc., with one operator using a minimum of physical effort on heavy loads. This new model EHRC truck will save you dollars in material handling. A simple and ingenious foot-pedal, combined with locking devices, permits 17 different angular leverage positions. A new toe-plate, effectively combined with these positions, makes it possible for one operator to easily self-load and roll away different size materials. A simple but remarkable hook also makes the EHRC completely adaptable to a great number of shapes and size of loads.

The EHRC truck will be on display at the National Materials Handling Exposition. See it demonstrated at the show—or if you cannot attend the show, write to us for our literature. It means the saving of dollars for you in reduced movement costs.

KEEN

MANUFACTURING COMPANY

504 Ivy

Harlingen, Texas

sales manager; C. M. Strauch, advertising manager; C. H. Sheldon, service manager; B. B. Brown, western sales representative; H. A. Humphries, eastern sales representative.

LYON-RAYMOND CORP.

BOOTH NO. 710, 711

George G. Raymond, president; Madeleine C. Raymond, vice president; William C. House, vice president in charge of manufacturing and engineering; George G. Raymond, Jr., sales manager; William L. Peck, assistant sales manager; DeWitt W. Sprout, sales engineer; Christian D. Gibson, chief engineer; Frank Forsberg, factory manager; William Lamb, controller, Elizabeth Culver, secretary to Mr. Raymond.



G. G. Raymond Jr.

MAGLINE, INC.

BOOTH NO. 10



D. E. Law

D. C. Law, president; R. V. Miller, secretary and treasurer; J. R. Thorpe, superintendent; W. A. Bubblitz, sales manager.

MAGNESIUM CO. OF AMERICA

BOOTH NO. 621

Miles L. Abel, vice president; Dennis E. Harvey, general sales manager; W. P. Sigler, eastern sales manager; R. L. McKee, dealer sales manager; William Johansen, John Hunter, sales engineers.

MANNING, MAXWELL & MOORE, INC., SHAW-BOX CRANE & HOIST DIVISION

BOOTH NO. 726

Arland R. Walkley, general sales manager; C. E. Miller, manager Hoist and Crane division; J. E. Nelson, manager Chain Block division; Wm. Cisko, eastern district sales manager; H. F. Morse, manager Products division.

MANSAYER INDUSTRIES, INC.

BOOTH NO. 14

Jack Breslav, president; Albert Uhlein, sales engineer; Frank Greising, sales engineer.

MARSH STENCIL MACHINE CO.

BOOTH NO. 29, 30

Walt Marsh, president; E. J. Marsh,



H. Hempel

secretary and treasurer; Herbert Hempel, vice president; John Marsh, sales department.



W. Marsh

MATERIAL HANDLING INSTITUTE, INC.

BOOTH NO. 126

R. Kennedy Hanson, secretary and treasurer; I. C. Anderson, staff assistant.

MAY-FRAN ENGINEERING, INC.

BOOTH NO. 628

E. W. Franz, secretary and treasurer; G. H. Meyfarth, Jr., vice president and general manager; C. F. McCrory, sales manager; C. F. Conrad, chief engineer.

MECHANICAL HANDLING SYSTEMS, INC.

BOOTH NO. 721, 722, 813, 814

W. V. Casgrain, president; L. J. Bishop, vice president in charge of engineering; J. F. O'Hara, sales engineer in charge of Philadelphia district; R. R. Shelton, sales manager; C. L. Moon, sales engineer.

MERCURY MFG. CO. BOOTH NO. 324, 325

O. T. Henkle, Jr., sales manager; Conrad Hibbeler, eastern sales manager; Harry L. Strong, A. C. Duncan, E. E. Nagel, New York sales office; Paul



O. T. Henkle

Werres, J. Clausen, Washington sales office; W. Conners, Richmond sales office; E. L. Harrington, Boston sales office; E. B. Forslund, Philadelphia sales office; L. F. Meissner, Jr., Pittsburgh sales office; A. E. Radcliffe, Cleveland sales office.



C. Hibbeler

MERRILL BROTHERS BOOTH NO. 318



W. Sickles

William Sickles, salesman.

MIDWEST PALLET CORP. BOOTH NO. 24

C. L. Lash.

MONARCH RUBBER CO. BOOTH NO. 32

R. J. Himmelright, president; R. E. Schreiber, sales manager; J. W. Cross, assistant sales manager; J. A. Shortridge, service manager.

MONROE CO., INC. BOOTH NO. 309

L. D. Sterns, president; E. I. Baker, sales manager.

MONROE AUTO EQUIPMENT CO.

BOOTH NO. 304, 305

Brouwer D. McIntyre, president; William D. McIntyre, executive vice president and treasurer; Charles S. McIntyre, vice president and secretary; J. E. Bickel, parts and accessories division sales manager; E. N. Moore, advertising manager; Dean Willoughby, Frank Stoner, material handling division.

MOTO-FLOW CO.

BOOTH NO. 217

Lloyd C. Schwartz, general manager;



L. C. Schwartz

Errol A. Schroeder, chief engineer; Roy A. Goettsche, sales and advertising.



E. A. Schroeder

MOTOR GENERATOR CORP.

BOOTH NO. 823

D. W. Baker, sales manager; R. C. Holder, sales department; G. O. Williams, J. D. Sampson, engineering department.

MOTO-TRUC CO.

BOOTH NO. 808

I. F. Schreck, president; E. L. Biesel, vice president.

MULTISTAMP CO., INC. BOOTH NO. 52

F. W. Pennington, manager Multistamp-Pennsylvania Company.

NATIONAL METAL EDGE BOX CO.

BOOTH NO. 718

M. P. Junkin, vice president sales and development; Charles Paist, sales manager; J. Allen Jobes, assistant sales manager; W. G. Muhleisen; Harold Snyder; C. B. Small; S. Howard Nicholson; L. E. Berry; C. H. Black; R. A. Branca; J. E. Fleagle; E. L. Bray.

NATIONAL PALLET CORP.

BOOTH NO. 108

Harry I. Miller, president; William F. Betzold, manager.

NATIONAL WOODEN BOX ASSN.

BOOTH NO. 601

Wm. H. Sardo, Jr., executive secretary; C. D. Hudson, executive vice president; W. J. Barton, David E. Zimmerman.

NEW BRITAIN-GRIDLEY MACHINE DIVISION, NEW BRITAIN MACHINE CO.

BOOTH NO. 128-A

NUTTING TRUCK & CASTER CO.

BOOTH NO. 333

A. B. Morris, vice president and general manager; K. F. Heath, assistant



K. F. Heath

treasurer and sales manager; M. A. Larson, advertising manager; G. S. Allen, secretary and traffic manager; R. L. Caron, sales engineer.



A. B. Morris



■ Warehouse people—those who work with portable conveyers every day—are the best judges of that type of equipment. They know which Belt Conveyers are easy and safe to adjust, and which are sensibly designed so as to get over rough warehouse floors without difficulty. They have learned that the lightest conveyers aren't necessarily the most practical.

You will find Mathews Portable Belt Conveyers and sections of Wheel and Roller Conveyor on more and more warehouse jobs these days. They are the result of nearly half a century of experience in engineering and building fine conveying equipment. They are available on a nation-wide basis through authorized distributors. Write today for descriptive literature.



MATHEWS CONVEYER COMPANY
ELLWOOD CITY, PENNSYLVANIA

MATHEWS CONVEYER COMPANY WEST COAST
SAN CARLOS, CALIFORNIA
MATHEWS CONVEYER COMPANY, LTD.
PORT HOPE, ONTARIO

Engineering Offices or Sales Agencies in Principal American and Canadian Cities



ORANGEVILLE MFG. CO. BOOTH NO. 622
L. C. Conner; J. C. Conner; R. C. Megargell.

OTIS ELEVATOR CO. BOOTH NO. 431
A. J. Mackrell; J. W. King; H. F. Carnell; W. F. Kroger; J. A. Warden; W. B. Tatem; W. J. Burke; H. F. Diehl; F. R. Seitz.

PACIFIC CHAIN & MANUFACTURING CO. BOOTH NO. 117

Sidney D. Lapham.

PALLET SALES CORP. BOOTH NO. 26
Harold L. Posner, president; Welles Worthen, chief engineer.

PATRON TRANSMISSION CO., INC.



J. O'Connor

BOOTH NO. 19, 20
Irving Patron;
James O'Connor;
Jack P. Hardman;
Anthony Falanga.

PESCO PRODUCTS DIV., BORG-WARNER CORP. BOOTH NO. 820, 821
D. A. Sutherland, eastern sales manager; J. D. Campbell, western sales manager; C. B. Maple, Jr.; N. B. Horn; P. C. Greenwood, advertising manager.

PITTSBURGH STEEL PRODUCTS CO. BOOTH NO. 511
C. A. Lutz, district manager, New York City; W. L. Whitman, II, district manager Philadelphia; Paul Mungan, mate-



P. Mungan



K. Hartung

rials handling engineer; W. O. Stoughton, sales engineer Philadelphia; H. D. Stone, materials handling sales, Pittsburgh; W. F. Ochs, materials handling engineer, Pittsburgh; Kenneth Hartung, materials handling engineer, Pittsburgh.

POWELL PRESSED STEEL CO. BOOTH NO. 512, 513
W. J. Powell, president; H. L. Powell, assistant vice president; A. G. Knowles, manager of sales; Wm. Glaser, sales department; H. D. Kennedy, engineering department.



P. Minich

RAPIDS-STANDARD CO., INC.

BOOTH NO. 112, 113

Lloyd C. Backart, chairman of the board; James R. Sebastian, president and general manager; Roger S. Calvert, secretary and treasurer; George R. Brockway, sales manager; Howard R. Pearl, eastern regional manager and vice president; C. Plin Mears, western regional manager; John Kramer, mid-western regional manager; Harvey Rasmussen, central regional manager; S. C. Tom Lloyd, southeastern regional manager.

READY-POWER CO. BOOTH NO. 435

Arch R. Smith, vice president of sales; R. W. Pelto, assistant sales manager; Arthur Verney, Boston district manager; George W. Frampton, Pittsburgh district manager; J. W. Webb, St. Louis district manager; J. A. Dittrich, New York district manager; H. R. Williams, New York representative; T. W. Gilbert, Philadelphia district manager.

RE-BO MANUFACTURING CO., INC.

BOOTH NO. 407

James R. Katzman, president; Richard I. Kahl, secretary; R. P. Comer, plant manager.

REVOLVATOR CO.

BOOTH NO. 613

P. D. Germond, secretary and chief engineer; H. S. Germond, III, treasurer and sales manager; R. D. Fisher, mid-western sales district; J. S. Grimison, Philadelphia district; H. W. Stoddard, northern New Jersey sales.

RICHARDSON-ALLEN CORP.

BOOTH NO. 319

Wesley S. Block, president; Cecil E. Brigham, vice president; Edw. H. Connelly, general manager; Maurie M. Milne, Chas. F. Norcross, J. B. Akers, Mr. Haas, sales.

RICHARDS-WILCOX MFG. CO.

BOOTH NO. 321, 322

E. R. Ransom, manager Over-Way division; A. B. Trefethen, sales engineer; R. E. Daugherty, C. M. Rust, H. E. Brown, Jr., sales engineers.

ROBBINS & MYERS, INC. BOOTH NO. 133

W. J. Helmer, general sales manager; J. R. Mears, sales manager Hoist division; F. F. Seaman, general manager Hoist division; E. D. Koch, sales engineer; C. E. Shirmer, chief engineer Hoist division; A. Kreh, New York office; R. B. Kite, Philadelphia office; Elbert W. Lively, representative.

JOHN A. ROEBLING'S SONS CO.

BOOTH NO. 124

F. J. Maple, manager of exhibits, J. L. Unsworth, manager Philadelphia branch; V. Daulton, assistant manager Philadelphia branch; William Hobbs, manager sales, Aircord division; A. P. Hiel, engineer.

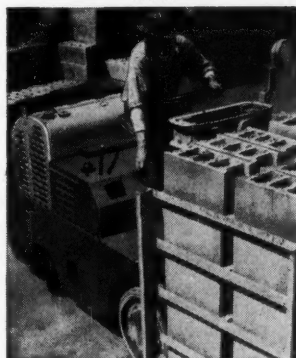
READY-POWER

is ^{*}BEST for

ELECTRIC TRUCKS



Ready-Power-Equipped Mercury Fork Truck



Ready-Power-Equipped Clark "Utilitrac"



BEST because Ready-Power delivers "constant-peak" electric power generated right on the chassis by the Ready-Power gas-electric Unit.

BEST because Ready-Power Units are available to fit the specifications of any electric truck manufacturer and can be installed at your request.

BEST because *only* Ready-Power can give you the constant availability of gasoline PLUS the flexibility and low maintenance of electric drive.

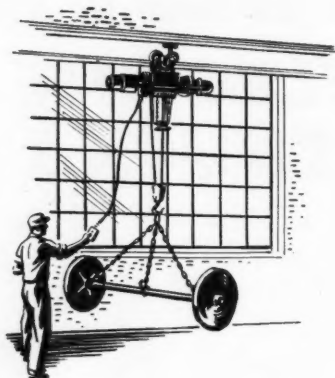
Visit the Ready-Power Display at Booth 435, 3rd National Materials Handling Exposition, January 10 to 14, Convention Hall, Philadelphia, Pa.

THE **READY-POWER** CO.

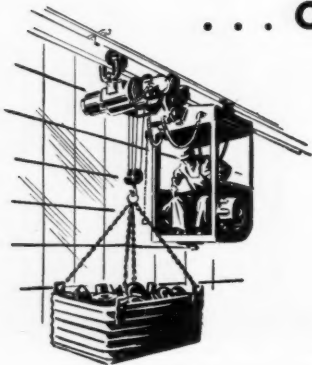
3838 Grand River Ave., Detroit 8, Michigan

THEY LIFT THE SAME LOAD BUT THEIR RUNNING COSTS DIFFER—

On the floor control, with the operator primarily occupied with other duties.



... OR



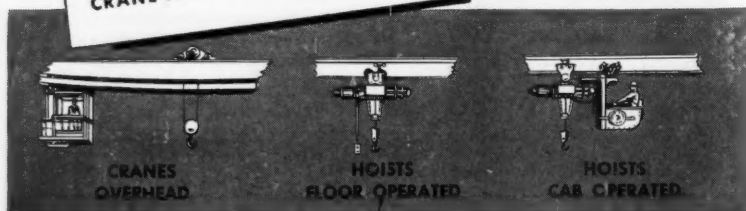
The operator in the cab, traveling loads at speeds up to 500 f.p.m. or more and occupying a better vantage point for spotting or stacking.

It's not always easy to forecast which type of service will best fill the bill.

Let the Shepard Niles specialist show you pertinent data on typical installations. He sells both types of hoist and overhead cranes as well, so he approaches your materials handling problem with an open, unprejudiced mind.

SHEPARD NILES
CRANE AND HOIST CORPORATION

Makes and sells all three lifting tools for airborne shop loads.



466 SCHUYLER AVENUE • MONTAUR FALLS, N. Y.

ROSS CARRIER CO.

BOOTH NO. 617, 618, 619

A. P. Ross, vice president; H. E. Ross, secretary; D. H. Ross, treasurer; A. L. Bliven, vice president; E. P. Repke, chief engineer, Lift Truck division; R. W. Spencer, chief engineer, Carrier division; L. A. DePolis, C. G. Kennedy, sales department; J. W. Ross, production department; J. J. Mlynski, M. B. Dickey, J. P. Bradshaw, J. I. Merritt, Jr., J. R. Page, W. R. Shepherd, sales representatives.

ROTARY LIFT CO.

BOOTH NO. 148

Hugh Allan, president; Jack Sanders,



H. Allan



J. Sanders

sales manager; Joe Burlington, division manager.

DAVID ROUND & SON

BOOTH NO. 215

David J. Gemmell, general sales manager; R. Bruce Vasey, advertising manager; Thornton H. Round, director of purchasing; David A. Round, engineering department.

ROWE METHODS INC.

BOOTH NO. 404

Arthur E. Rowe, president; Edward W.



E. W. Addis



A. E. Rowe

Addis, sales manager; Paul G. DuBois, service manager.

RUGER EQUIPMENT CO., INC.

BOOTH NO. 301

K. A. Ruger, president; Seymour



K. A. Ruger



C. Tryon

Schlein, chief engineer; Clarke Tryon, sales manager; Jack Neal, service manager.

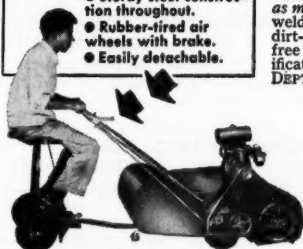
Now...added
catcher-capacity
on the *New*
8 cu. ft.
model 125

Wilshire POWER SWEEPER



New Efficiency, Too! Riding SULKY FOR ALL MODELS

- Sturdy steel construction throughout.
- Rubber-tired air wheels with brake.
- Easily detachable.



WILSHIRE POWER SWEEPER CO.

4615 Alger St., Los Angeles 26, Calif.

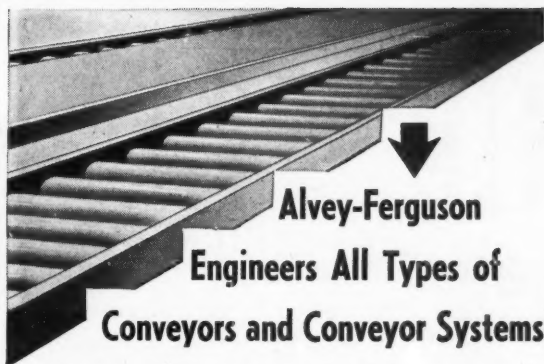
SWEEPING THE COUNTRY SINCE 1940

Presenting a *powerful* new sweeper that covers more area faster...*reduces cleaning time and maintenance costs as much as 90%*. Keeps floors free of welding rod butts, nails, chips, paper, dirt—keeps lawns, drives, parkways, free of paper, sand, debris. For specifications and prices, write today—DEPT. F-1.

QUICK FACTS

POWER. 2 or 3 h.p. gas motor, air-cooled, 4 cycles.
FRAME. Cast aluminum.
BODY. 20-ga. sheet steel.
SWEEP. 36". Sweeps to within 1" of walls.
FACTORY TESTED. 90-day guarantee.
GUIDE WHEEL. Protects walls and equipment.

DEALERS: Choice Territories Open!



Alvey-Ferguson Engineers All Types of Conveyors and Conveyor Systems!

Which type of conveyor is best for *your* factory. Since 1901, A-F Engineers have engineered all types of conveyors in all types of plants—therefore, are best qualified to counsel with you. Write for details concerning—

GRAVITY ROLLER CONVEYORS • APRON CONVEYORS
LIVE ROLLER CONVEYORS • PORTABLE CONVEYORS
OVERHEAD TROLLEY CONVEYORS • CHAIN CONVEYORS
BELT CONVEYORS • BARREL, KEG and BAG CONVEYORS
—or Completely Co-ordinated Conveyor Systems.

THE ALVEY-FERGUSON COMPANY

433 Disney Street Established 1901 Cincinnati 9, Ohio

Officers or Representatives in Principal Cities Coast to Coast



● How many of the jobs at right are strictly man-handling operations in your plant? It doesn't have to be many before substitution of Lorain "crane power" will return handsome dividends in the form of man-hour savings, reduced car demurrage, better utilization of storage areas and faster flow of material from storage to production lines.

Lorain cranes are available as crawler units or with rubber-tire mountings (self-propelled and two-engine types). Complete information on these machines and their many industrial applications is contained in new free materials handling catalog just off the press. Ask your local Thew-Lorain distributor for a copy today or write direct.

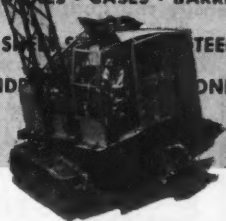


THE THEW SHOVEL COMPANY • LORAIN, OHIO

thew-Lorain

LORAIN CRANE *VS* MAN
HANDLING HANDLING
SAVES MONEY

BOXES • CASES • BARRELS • KEGS • CRATES • SHEET STEEL • BAR STEEL
ROLLED STEEL FORMS • SCRAP • COAL • FOUNDRY SAND • LIMESTONE
PIPE • VALVES • CEMENT • CRUSHERS • STONE • INGOTS • FITTINGS • CO
CONCRETE • RAILROAD TIES • RAILS • ASHES • CIN
CINDERS • TURNING • STACKS • DRUMS
CABLE REELS • CASTINGS • CASES • BARRELS • KEGS • CRATES • SHEET STEEL • BAR STEEL
BOXES • CASES • BARRELS • KEGS • CRATES • SHEET STEEL • BAR STEEL
ROLLED STEEL FORMS • SCRAP • COAL • FOUNDRY SAND • LIMESTONE
PIPE • VALVES • CEMENT • CRUSHERS • STONE • INGOTS • FITTINGS • CO
CONCRETE • RAILROAD TIES • RAILS • ASHES • CIN
CINDERS • TURNING • STACKS • DRUMS
CABLE REELS • CASTINGS • CASES • BARRELS • KEGS • CRATES • SHEET STEEL
BOXES • CASES • BARRELS • KEGS • CRATES • SHEET STEEL • BAR STEEL
ROLLED STEEL FORMS • SCRAP • COAL • FOUNDRY SAND • LIMESTONE





when you use Battery Industrial Trucks

Greater efficiency in material handling means greater earning power in any plant. Start paring unnecessary moves for production hands or warehouse men and you not only reduce handling cost per unit, but make way for volume never before possible.

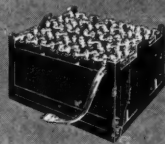
Battery industrial trucks are the dependable, economic means of obtaining such efficiency. They can perform their strenuous tasks 24 hours a day every day if required, and their power characteristics are outstanding: instant starting; quiet operation; no fumes; no power used during stops. Driven by electric motors, they have a minimum of wearing parts and are inherently trouble-free.

Keeping these hard-working trucks on the job calls for EDISON Nickel-Iron-Alkaline Batteries. Built of rugged steel, yet precise as a watch, they are recognized for dependability, long life and trouble-free operation. Specify EDISON and you specify maximum reliability—enduring quality.

ADVANTAGES OF EDISON NICKEL-IRON-ALKALINE BATTERIES:
They're mechanically durable; electrically foolproof; quickly and easily charged; simple to maintain; not injured by standing idle.



EDISON
 Nickel • Iron • Alkaline
 STORAGE BATTERIES



EDISON STORAGE BATTERY DIVISION
 of Thomas A. Edison, Incorporated, West Orange, N. J.
 In Canada: International Equipment Co., Ltd., Montreal and Toronto.

SAGINAW PRODUCTS CORP.

BOOTH NO. 146

G. K. Mulholland, president; Edw. L. Lee, sales engineer and advertising manager; P. J. Zehnder, sales; C. A. Hagarty, production sales.

SCHWITZER-CUMMINS CO.

BOOTH NO. 337



Louis Schwitzer, Jr., president; J. A. McDaniel, sales manager; Walter Greenhalgh, service manager; Robert D. Gruen, sales department.

J. A. McDaniel

SERMAT CONVEYOR CORP.

BOOTH NO. 401

Edward N. Michna, chief engineer; Wesley A. Peterson, sales director; James Vani, president.

SERVICE CASTER & TRUCK CORP.

BOOTH NO. 520

Edward C. Hamm, president; L. L. Reed, vice president; A. G. Reid, vice president; E. C. Goodall, sales manager; H. W. Beers, New York manager; M. G. Dexter, manager Somerville, Mass. plant; William Blommel, assistant sales manager Motowlift division; Garrett Gething, advertising manager.

SERVICE SUPPLY CORP.

BOOTH NO. 729, 730

C. A. Wahlquist, vice president; Hugh Moldenhauer, assistant sales manager; A. C. Farley, W. R. Poulterer, sales department; A. F. Dries, advertising manager.

SHERMAN PAPER PRODUCTS CORP.

BOOTH NO. 115

George Sherman, president; D. S. Roberts, director of operations; E. W. Preston, industrial division sales manager; A. G. Whitehead, field sales manager; H. W. Aubrey, assistant sales manager; Paul Thompson, advertising and sales promotion manager; J. J. Connaughton, chief engineer; J. Bode, A. Bradley, G. W. Beale, J. H. Feaver, A. S. Houston, regional packaging engineers.

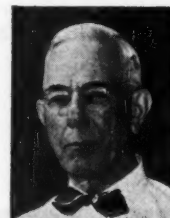
SHINGLE & GIBB CO.

BOOTH NO. 818

L. H. Shingle, president; L. H. Shingle, Jr., vice president and general manager.



F. W. Baldt



L. H. Shingle

ager; F. W. Baldt, vice president and plant executive vice president; T. Folger Thomas, general manager of pro-

duction; John F. Muller, sales manager; Richard L. Garretson, conveyor representative; Richard Westcott, conveyor representative.

SIGNODE STEEL STRAPPING CO.

BOOTH NO. 708

J. H. Leslie, vice president in charge of research and engineering; R. L. Knapp, Philadelphia district manager; J. W. Angell, marketing manager; E. C. Pagel, special representative; L. J. Scales, field engineer; L. J. Brown, steel division.

SILENT HOIST & CRANE CO.

BOOTH NO. 623, 624

Joseph W. Wunsch, president; M. M. Botnick, sales manager; M. M. Klein, assistant sales manager; Vahan Bozian, sales engineer; Eric Martin Wunsch, sales engineer.

THE SISALKRAFT CO.

BOOTH NO. 47

J. E. Harvey, vice president charge of sales; H. Deputy, industrial sales; Fred Koehn, regional representative.

SKARNES ENGINEERING & SUPPLY INC.

BOOTH NO. 819

R. F. Skarnes, president; Walter G. Burry, secretary and treasurer.

R. M. SLOAN EQUIPMENT CO.

BOOTH NO. 11

SPEEDWAYS CONVEYORS, INC.

BOOTH NO. 201

Samuel A. Leone, director of sales; Arnold Jacobowitz, general manager; Maurice Osterman, director of export sales; Ralph Michaelis, superintendent; W. W. Ruppel, director of Canadian sales; George McCumber, treasurer.

STHAMMER SUPPLY CO.

BOOTH NO. 118

STANDARD CONVEYOR CO.

BOOTH NO. 706, 707

E. E. Boberg, general sales manager; R. E. Cummings, district field manager; Harrold E. Beebe, district field engineer.

THE STANLEY WORKS

BOOTH NO. 12

George H. Little, Philadelphia representative; Rowland D. Thomas, Pittsburgh representative; Lewis C. Warner, New York representative; Allen Y. Bristoll, New York manager; Benjamin T. Taylor, special representative.

STAR ELECTRIC MOTOR CO.

BOOTH NO. 13

Elvin E. Hallander, president; James M. Adair, vice president sales; Harold Sokobin, secretary; Howard W. Horne, treasurer; Howard J. Trombley, Philadelphia sales manager; Winton S. Smith, sales engineer.

STEEL PARTS MFG. CO.

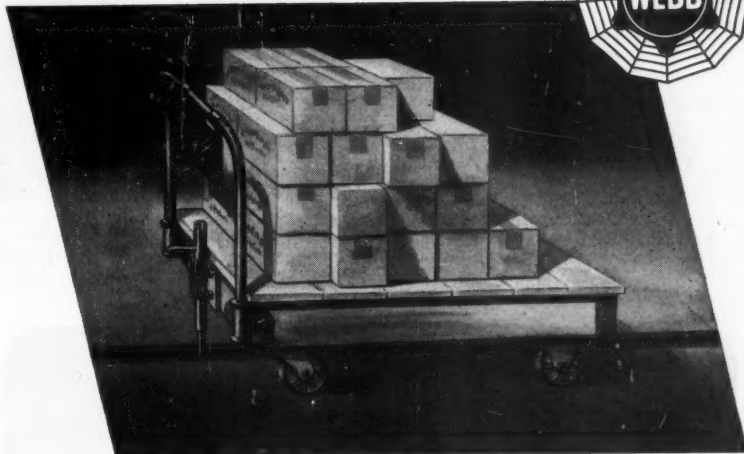
BOOTH NO. 120

E. M. Plett, chief engineer; Alex Norring, R. W. Lautz, Walter Falck, representatives.

STERLING BOLT CO.

BOOTH NO. 406

D. P. Wertheimer, sales manager; Arnold R. Meyer, assistant sales manager.



WEBB

Towveyor

FLOOR TYPE TOW CONVEYOR

- **FAST**—Operator Drops Pin In Slot, Walks Away . . . No Loading Time Lost.
- **CLEAR FLOOR**—No Obstacles . . . You Can Truck Over It Easily.
- **FLEXIBLE**—Can Be Routed As Required . . . Disengaged Anywhere Along The Route.

The Webb Floor Tow Conveyor is a new type chain conveyor running in a slot below the floor. Standard shop or warehouse trucks, either 2 or 4 wheel are used. The simple towing pin mechanism is bolted to the front end. Uncomplicated, easy to operate. No overhead structure to interfere with floor traffic.

See

OUR EXHIBIT AT...

**NATIONAL MATERIALS HANDLING EXPOSITION
JANUARY 10-14, 1949; PHILADELPHIA, PA.
BOOTHS 421, 422, 514, 515**

JERVIS B. WEBB COMPANY

Conveyor Engineers and Manufacturers

8951 ALPINE AVENUE • DETROIT 4, MICHIGAN

Offices in Principal Cities

STEVENS APPLIANCE TRUCK CO.

BOOTH NO. 49

W. P. Stevens, owner; Mrs. W. P. Stevens.

THERMOID CO.

BOOTH NO. 528

A. F. Matheis, industrial sales promotion manager; L. R. Leaver, vice president & sales manager; S. H. Lyons, vice president & manager.

THEW SHOVEL CO.

BOOTH NO. 423, 424

M. B. Garber, general sales manager; Q. J. Winsor, assistant sales manager; J. T. Cushing, assistant sales manager; J. L. Beltz, manager sales promotion; F. A. Williamson, midwest sales manager; R. T. Maynard, export manager; R. A. Reynolds, mid-atlantic sales manager; D. W. Savage, eastern sales manager.

THOMAS TRUCK & CASTER CO.

BOOTH NO. 106, 107

J. F. Thomas, president; L. B. Miller,



E. Murphy

secretary & treasurer; W. L. Hutton, vice president; J. Henderson, Parke



W. L. Hutton

Anderson, Freeman Simpson, sales department; W. Guild, engineering department; Ed. Murphy, eastern manager.

TOLEDO SCALE CO.

BOOTH NO. 412

L. R. Hummel, Philadelphia zone man-



L. R. Hummel

ager; A. J. Jerome, industrial sales manager, Toledo; F. W. Gilchrist, chief sales engineer, Toledo.



A. J. Jerome

TOWMOTOR CORP.

BOOTH NO. 502, 503, 504, 432, 433, 434

C. E. Smith, executive vice president;



A. H. Roth

Alfred H. Roth, advertising & sales promotion manager; Gordon Winters, Win Utley, Dave Cissna, sales department; Ray Scott, Camden office; Lee Daniels, Joe Frischmann, Lee Cirillo, engineering department; A. A. Moore, New York office.



C. E. Smith

TRACT-R-LIFT CORP.

BOOTH NO. 735

Kenneth E. Miller, president; Earl L. Virden, sales manager.

TRANSITIER SALES CORP.

BOOTH NO. 402

Verne Johnson, president; Glen Ede,



R. C. Hopkins

vice president of Transitier Truck Co.; Clark Hopkins, president; James W. Wiltzie, Jr., vice president of Transitier Sales Corp.



G. M. Ede

TRIANGLE EQUIPMENT CO., INC.

BOOTH NO. 7, 8, 9

R. B. Anderon, president; D. C. Reilly, engineer; R. W. Anderson, vice president; L. M. Fageley, advertising manager; C. S. Cogger, infra red manager; F. Thayer, infra red engineer; T. R. Black, president Tipp Mfg. Co.; D. L. Reed, secretary Tipp Mfg. Co.

Don't wait! Investigate the versatile

Divine "WATE" LINE

SWIVEL and RIGID TRUCK CASTERS



DIVINE makes a caster for every material handling need—any load, any truck. The "WATE" Line is built to carry any weight.

Divine Steel-Wate Casters are of strong... simple design. Swivel caster has single ball race. Both swivel and rigid casters have reinforced axle.

Divine Lo-Wate Casters are unusually sturdy and constructed to function reliably under reasonable loads. Both swivel and rigid casters available.

Divine Mid-Wate Casters are designed for medium duty, with a high safety factor for overloads. Safe and efficient—swivel and rigid types.

Divine Hi-Wate Casters offer performance for the heaviest loads. Efficient design means long life and service in both swivel and rigid casters.

DIVINE WHEELS

for every load... for every floor

There's a Divine Wheel to fit your every need... for every floor from tile to rough concrete: Canvas Cushion, Formica, Rubber, Steel, and specialty wheels. Every material moves safer, easier on Divine Wheels.



Visit the Divine Exhibit... Booth 519... at the Materials Handling Exposition, Philadelphia, January 10-14

Divine Brothers Company

UTICA I, N.Y., U.S.A.



TRUCK-MAN, INC. BOOTH NO. 137
T. B. Funk, president; Walt Mayer, general manager; Ray Dunlap, vice president; W. S. Butterfield, secretary & treasurer; M. H. Anderson, comptroller; R. O. Hoyt, chief engineer.

TRUSCON STEEL CO., PRESSED STEEL DIV. BOOTH NO. 427
W. M. Whalen, general manager of sales; J. H. Ayre, sales manager material handling division; H. A. Beattie, district manager Chicago sales office; T. G. Watkins, district manager Detroit sales office; J. M. Keenan, Philadelphia sales office.

UNION METAL MFG. CO. BOOTH NO. 620
L. West Shea, manager materials handling sales; L. E. Collins, sales engineer; D. E. Hammond, sales engineer.

UNION STEEL PRODUCTS COMPANY BOOTH NO. 128-B
D. H. Bitney, manager wire products division; Lawrence F. Emigholz, manager materials handling division; Irving P. Nelson, eastern sales manager; Don W. Kelsey, materials handling engineer; W. C. Neumann, sales manager.

UNISTRUT PRODUCTS CO. BOOTH NO. 116
George Butler, president; Ralph Butler,



G. Butler



A. J. Croze

vice president; A. J. Croze, vice president; John Helsin, sales manager; E. F. Dykstra, advertising manager; Charles Attwood, president of Unistrut Corp.

UNIT CRANE & SHOVEL CORP. BOOTH NO. 213, 214
A. R. Corbett, vice president; W. G. Larson, sales manager; G. W. Mace, advertising manager.

UNIT MANUFACTURING CO. BOOTH NO. 3
H. W. Overman, president; M. M. Lowe, secretary; H. K. Bigelow, manufacturing; M. K. McGillis, sales.



H. W. Overman

U. S. STEEL CORP. BOOTH NO. 140
H. M. Reed, chief carload & stowage engineer; E. P. Ribet, branch manager; E. B. Kovats, assistant branch manager; W. L. Laque, L. Howe, A. Etchingham, B. T. Ryan, F. E. Benjamin, R. G. Patterson, field engineers; W. B. Renois, general manager sales; A. B. Margileth, branch manager.

UNIVERSAL 4-WAY PALLET CO. BOOTH NO. 53
Walter J. Cahnners.

See page 28 for the listing of exhibitors according to the products which they manufacture. Companies are listed under more than one section if they produce several types of equipment.

WAYNE CRANE DIVISION, AMERICAN STEEL DREDGE CO., INC. BOOTH NO. 720
Don L. Douglass, sales manager;



W. W. Walb



D. L. Douglass

Walter W. Walb, president.

INDIVIDUALITY

Your product is made to do a specialized job. The box or crate which contains it should be specialized to that product.

SUPERSTRONGS—"Bound with Steel"—are all custom-built to individual requirements. It isn't too early to start discussing with us the type of **SUPERSTRONG** you will want for your better postwar products.

SHIPPING SUPERSTRONG CONTAINERS

RATHBORNE, HAIR AND RIDGWAY COMPANY
1440 WEST 21st PLACE • CHICAGO 8, ILLINOIS

JERVIS B. WEBB CO.
BOOTH NO. 421, 422, 514, 515
 Jervis B. Webb, president; Jervis C. Webb, treasurer; E. W. McCaul, sales manager.

WEBER ADDRESSING MACHINE CO.
BOOTH NO. 48
 Joseph Weber, owner; Charles E. Ritter, general sales manager.

WEHLE CONVEYOR CO. **BOOTH NO. 418**
 E. C. Wehle, president.

WEISHOR CORP. **BOOTH NO. 815**
 L. C. Oertle, Sr.

WELLINGTON MACHINE CO.
BOOTH NO. 51
 C. A. Glass, sales manager; Ira L. Conkling, sales representative.

WEST BEND EQUIPMENT CORP.
BOOTH NO. 122

A. H. Klumb, president; C. E. Klumb,



C. J. Marks

secretary; C. J. Marks, production manager; P. A. Kessler, sales manager.



C. E. Klumb

WESTINGHOUSE ELECTRIC CORP.
Booth No. 110, 111
 J. H. Thomson; R. P. Wagner, manager.

WHITING CORP. **BOOTH NO. 809**
 B. A. Hanner, sales manager; Hoists; C. S. Teeple, Hoist sales; R. E. Mahnke, Hoist sales; R. W. Roberts, manager Light Cranes & Monorails; E. C. Rice, vice president materials handling department; C. J. Mayo, manager Tram-beam sales.



R. W. Roberts

WILKIE CO. **BOOTH NO. 323**
 John J. McLaughlin, sales manager.

WILSHIRE POWER SWEEPER CO.
BOOTH NO. 16
 Raymond E. Martin, sales engineer.

WIREBOUND BOX MANUFACTURERS ASSN.
BOOTH NO. 223

R. J. Lison, sales manager.
 E. F. Gallivan, assistant secretary.
WOOD PALLET CO., INC. **BOOTH NO. 31**
 Beulah Freeman, in charge of New



T. Held



B. Freeman

England sales; Theodore Held, material handling engineer; William Ballison, president; S. Silver, coordinator of sales.

WRIGHT HOIST DIVISION, AMERICAN CHAIN & CABLE CO. **BOOTH NO. 306, 307**
 Ray Haskins, sales manager.
YALE & TOWNE MFG. CO.

BOOTH NO. 521, 522, 523
 C. O. Hedner, hoisting equipment section manager; M. G. Peck, manager industrial power section; W. G. Tipton, manager hand lift section; H. D. Powers, manager export department; J. J. Murray, manager service section; J. D. Young, scale department manager; J. S. McCullough, manager sales promotion & advertising; S. W. Gibb, sales manager; A. S. Gleason; H. A. White; B. H. Vandegrift; J. J. Murray; L. E. Johnson; Carl Lang; W. F. Redmond; H. G. Schoppe; W. K. McGreevy; W. E. Clapp; R. J. McGreevy; Ken Giffault; Ed Moorhead.

PAUL O. YOUNG CO. **BOOTH NO. 15**
 Paul O. Young, proprietor; Robert R.

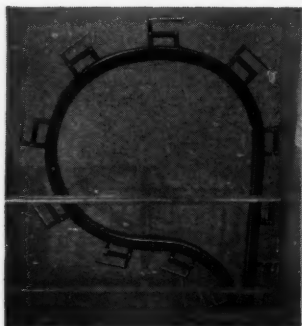


R. R. Young
 Young, manager.



P. O. Young

Curves that count



Lighten Materials Handling Loads with Richards-Wilcox ZIG-ZAG Continuous Power Conveyor

Designed for carrying light loads within a confined space, Richards-Wilcox ZIG-ZAG Over-Way continuous power conveyors are serving production and processing lines in every imaginable industry—increasing efficiency, cutting costs. If you have perplexing handling problems to solve, call or write the nearest office of Richards-Wilcox . . . world's largest makers of power conveyors and door hardware . . . for free literature.

Over-Way Conveyors Unburden Industry

3 Styles Solve Any Overhead Handling Problem

1

Richards-Wilcox Tru-Tred and Steel Beam Over-Way for heavy loads up to 8,000 pounds.

2

Richards-Wilcox Tubular Trolley Track Over-Way for medium loads up to 3,000 pounds.

3

Richards-Wilcox Zig-Zag Powered Chain Over-Way for light loads to be conveyed through degreasing, finishing, baking and other processes facilitated by meandering conveyor track with power operated enclosed chain.

Richards-Wilcox Mfg. Co.

A MEMBER OF THE ROYALTY GROUP

AURORA, ILLINOIS, U.S.A.

Branches: New York, Chicago, Boston, Philadelphia, Cleveland, Cincinnati, Washington, D.C., Indianapolis, St. Louis, Milwaukee, Des Moines, Minneapolis, Kansas City, St. Paul, Seattle, Portland, Tacoma, Everett, Spokane, Boise, Salt Lake City, Denver, Omaha, Lincoln, St. Joseph, Mo., St. Louis, Mo., St. Louis, Mo., St. Louis, Mo.

1880



1949

OVER 69 YEARS



are **LARGE** **HEAVY CRATES** *Your problem?*



LOW COST **ROL-A-LIFTS** **HANDLE THEM EASILY**

Hundreds of firms—railroads, truckers, stores, warehouses use Rol-A-Lifts for fast, easy handling of heavy, bulky crates (10 to 20 ft. long or longer), bundled steel, skid-mounted or palletized material. Built-in hydraulic jack lifts load. Full-swiveling casters. Load can be rolled into freight cars and tight spots. Four models: 2, 4, 6 and 8000 lb. capacities. Order in sets of two—one Rol-A-Lift for each end of the load.

SKARNES ENGINEERING & SUPPLY CO.
2428 Riverside Ave., Minneapolis, Minn.

WRITE FOR
FOLDER AND
PRICES

ROL-A-LIFT



with **PLASTIC ROCK!**

Trowel a smooth, tough, malleable surfacing right over your old concrete or wood floor

Plastic Rock comes complete, packed in barrels, nothing more to buy, no application "formula" to confuse you. Simply mix and trowel right over old floors; sticks to concrete, wood, steel, average depth 1/2", patches concrete to perfect feather edge. Old floor Saturday, new floor Monday; hundreds of tons rolling on steel wheels only improve it; 7-year-old floors show no wear. Plastic Rock is spark-proof, skid-safe even when wet, dustless, silent, feels like cork under foot, cannot splinter, crack, crumble, curl or loosen. Used by largest industries and railroads in America. Your contractor or your own crew can apply. Not for home use.

Ask for Report 220-F-1

UNITED LABORATORIES, INC.
16809 EUCLID AVENUE • CLEVELAND 12, OHIO

In Canada—STORRAR MFG. COMPANY, Weston, Ontario
Representatives everywhere, including foreign countries

ELECTRIC **LIFTING IS** **LOW COST** **LIFTING**

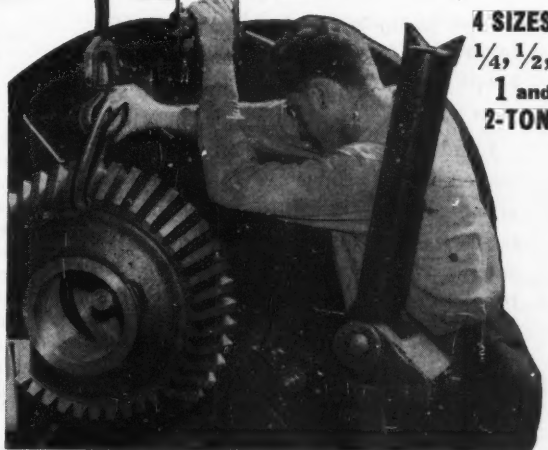
The Whiting Electric Hoist is 13 TIMES
as fast as a Hand Hoist . . .

Yet this ONE-TON Size

Costs
Only \$230⁰⁰

F. O. S.
HARVEY
ILLINOIS

By releasing men and machines for productive work, the Whiting Electric Hoist pays for itself in a very few months. You can figure on this basis: if this new hoist saves just one man only 12 minutes a day, it pays a profit!



4 SIZES
1/4, 1/2,
1 and
2-TON

WHITING **ELECTRIC HOISTS**

Write for Bulletin H-100A

WHITING CORPORATION

15659 Lathrop Ave., Harvey, Ill.

- ☐ Send me a copy of your Bulletin H-100A.
- ☐ Send me the name of the Whiting distributor in my locality.

NAME _____

STREET ADDRESS _____

CITY _____

STATE _____

*"Okay-you make
good boxes..."*

*What does
that mean
to Me?"*



It means, Mr. Manufacturer, that your products get protection. The kind of protection that ends costly complaints, that keeps your customers happy, that *keeps* your customers.

It means that General Boxes are designed to the product . . . that they are actually "A Part of the Product." They are lightweight, compact, extra strong! You save freight, storage space, and gain added protection!

We'd like to tell you more about the very real benefits to you of General Boxes. Won't you write us today?

General BOX COMPANY

★★★★★ *...engineered shipping containers*

GENERAL OFFICES: 60 W. Illinois Street, Chicago 10.
DISTRICT OFFICES AND PLANTS: Brooklyn, Cincinnati,
Detroit, East St. Louis, Kansas City, Louisville, Milwaukee,
New Orleans, Sheboygan, Winchendon, Natchez.
Continental Box Company, Inc.: Houston, Dallas.

General Box Company has had more than 25 years of experience in manufacturing shipping containers. Furthermore, our two modern Designing and Testing Laboratories are available for the improved packing of your product. Booklet below gives complete details.



Send for your copy. It shows how you too can cut costs.



General Wirebound Crate

General Nailed Box

General Corrugated Box

General Cleated Corrugated Container

General All-Bound Box

General Lift Pallet

CONSULTING ENGINEERS DIRECTORY

A. H. GFROERER

DESIGN AND DEVELOPMENT ENGINEER.
MATERIALS HANDLING EQUIPMENT.

All types of motive power driven. Thirty-five years experience with the industries largest companies.

Bernardsville, New Jersey



PALLETS

**MADE TO YOUR
SPECIFICATIONS!**

From Air Dried Hardwoods

**ALSO
BOX PALLETS
BULKHEADS
CRATES**

*Write and tell us your needs
or send us your specifications
for quotation.*

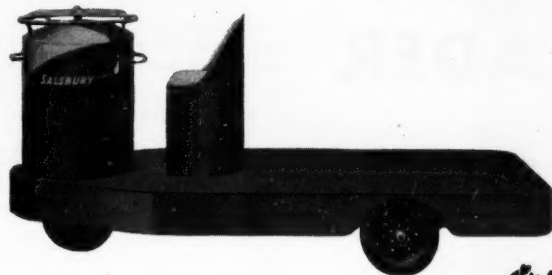
Incorporated 1922

**BIGELOW-GARVEY
LUMBER CO.**

326 W. Huron St. Chicago 10, Ill.
Phone: WHitehall 4-5252

MILLS: Arkansas - Georgia - Wisconsin
Minnesota

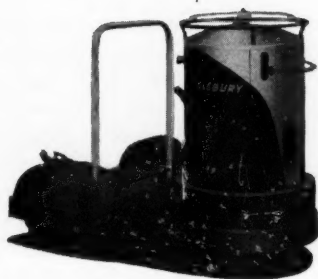
THE NEW AND IMPROVED LINE ^{of}



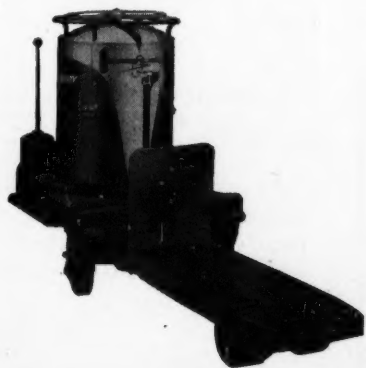
Turrettruck
for
Bulk Cargo Handling



Pallettruck
for
Palletized Operation



Turretug
for
Trackless Trains



Turreteer
for
Platform Loading

SALSBU^{ry} TURRET TRUCKS

Greatly increased maneuverability, speed and safety in the handling of a large percentage of all horizontal loadings distinguish this new and improved line of Salsbury Turret Trucks.

As "in-between" trucks they team ideally with existing material handling systems, i.e., conveyors, fork lift and hand equipment. They are daily proving themselves economically useful in production, assembly, warehousing and transportation—*handling more tons per hour at least first and last cost.*

STUDY THESE ADVANTAGES

A 360° turning radius with full reverse or change in direction without gear shifting or stopping the drive wheel gives a new kind of maneuverability—the kind that goes all the way.

Fingertip throttle control from "inching" to full speed, with no clutch pedal or gear shift lever, facilitates loading or distribution from trucks.

Automatic Drive, with infinitely variable speed ratios, gives the proper power at the right time; whether truck is loaded or empty; on a straightaway run or up a 15° ramp; at from one to eight miles per hour.

Power plant rides on four point rubber cushions which absorb vibration.

Pallettruck and Turreteer enjoy wide 4-point suspension on roller bearing wheels with industrial rubber treads and are fully articulated for sharp changes in grade levels.

The Wisconsin Air Cooled Engine, Heavy Duty Automatic Clutch and Transmission and a powerful drive wheel brake provide assurance of long life and satisfactory use performance.

Write for full and complete information, mentioning the model in which you are particularly interested.

"As the originator of the turret drive principle for material handling trucks, we are fortunate to again have the manufacture and sale of this equipment back in our hands. During the past year great strides of real improvement have been made. Today you have this assurance—NO SALE OF ANY TURRET TRUCK IS FINAL UNTIL FULL AND COMPLETE SATISFACTION IS FOUND IN TRIED USAGE."

E. J. Salsbury
President.

SALSBU^{ry} CORPORATION

1161 Florence Ave., Los Angeles 1, California

PALLET LOADER IN A FILLING LINE

An automatic pallet loader has contributed greatly to an hourly output of more than 10,000 quart cans of oil.

By M. S. IMES
Terminal Superintendent
Union Oil Co. of California
Los Angeles, Calif.

THE petroleum industry, like all industries during the war, concentrated its efforts on expanding facilities for the production and fabrication of materials required by the armed forces. Wartime expansion failed to provide, in many ways, for the current peacetime demands. Today, with a marked increase in the availability of materials, the Union Oil Co. of California has made adjustments to gear its production output for domestic and foreign markets.

In this highly competitive field, production costs must be constant-

ly checked and every effort made to keep them at a minimum. Equal effort must be exerted to develop handling and packaging systems whereby production lines can economically maintain a steady flow through the plant. This flow of material from its bulk state to finished packaged merchandise must be mechanized as far as possible.

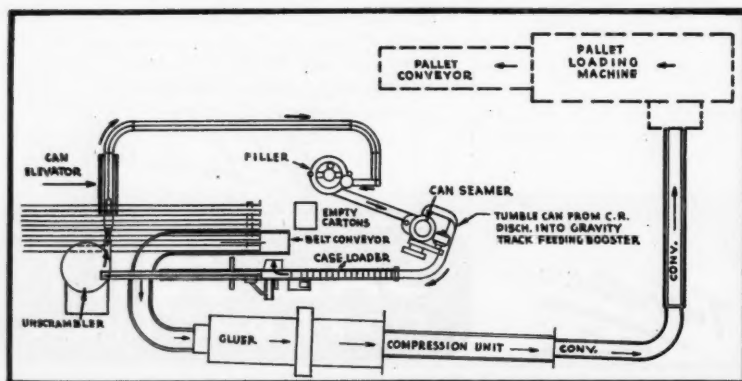
Filling, Sealing and Packing Equipment

For many months we had been looking forward to the time when a sufficient quantity of one-quart cans would be available to enable us to fill the demands of our customers for motor oil. These demands became so heavy that in the event restrictions were eased on empty cans, our pre-war equipment would be far from adequate. Therefore, a new can-filler was installed in a new and more favorable location. At the same time a more pro-

Palletizing machine, pallets, can unscrambler, filling equipment, fork truck.

ductive flow layout was engineered. This filling equipment, while smaller than the one destined to replace it at a future time, has a capacity of 180 cans per minute. To handle this volume as well as that of the filler which will ultimately be installed, a new can-seamer or capper with a potential of 270 cans per minute was purchased.

With this increase in our can-filling and seaming operations to an approximate 450 of the 24-quart size cases per hour, it was necessary to install suitable equipment to take over the increased case filling and the handling of the finished packages. Arrangements were made to use pallets. By elimination of single case handling at shipping as well as receiving points, a considerable saving in man-hours was realized.



Palletizing Machine—15 Cases Per Minute

In order to speed pallet loading, a recently developed piece of equipment—a palletizing machine—was added, which loads the cases on

Palletizing machine in the filling line for one-quart cans of oil.

1. EMPTY ONE-QUART CANS are aligned on an unscrambler and ejected via chute to an elevator, thence via another chute to the can filler.

2. CANS ENTER nine-pocket filler in background, then pass to can sealer. At left cans are elevated to case-loader hoppers.

3. AUTOMATIC CASER loads 24 cans into a carton.

4. CASE GLUER applies adhesive to top and bottom flaps. Compression rollers are mounted on incline.

5. SEALED CASES approach automatic pallet loading equipment. Six cases are on stripper plate while the lock-stack row of four wide is being prepared. (1) Micro switches; (2) accumulator conveyor; (3) accelerator conveyor; (4) rotary unit; (5) stripper plate; and (6) pusher.

6. PALLET HOPPER and control panel of pallet loader.

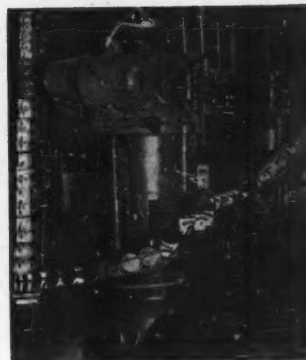
7. LOADED PALLET is lowered on elevator within loader. It is ejected onto conveyor, ready for removal by fork truck.

8. FORK TRUCK which services the pallet loader also stows and loads outgoing carriers.

1



2

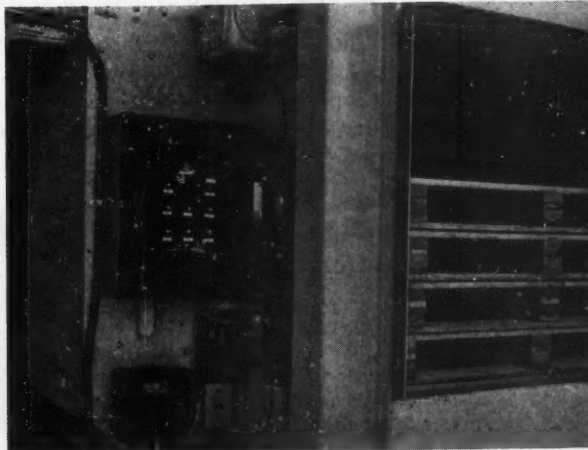
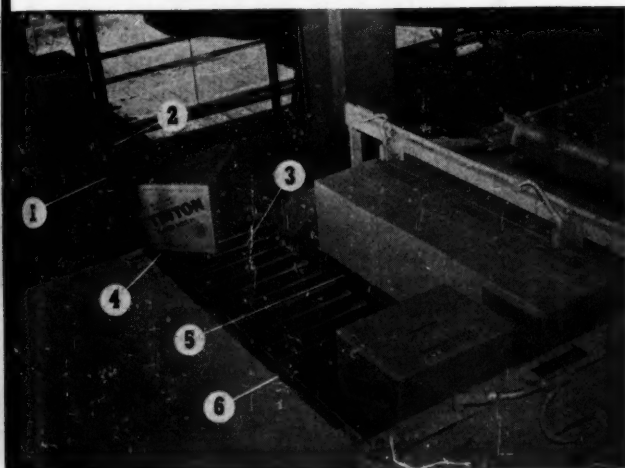


3



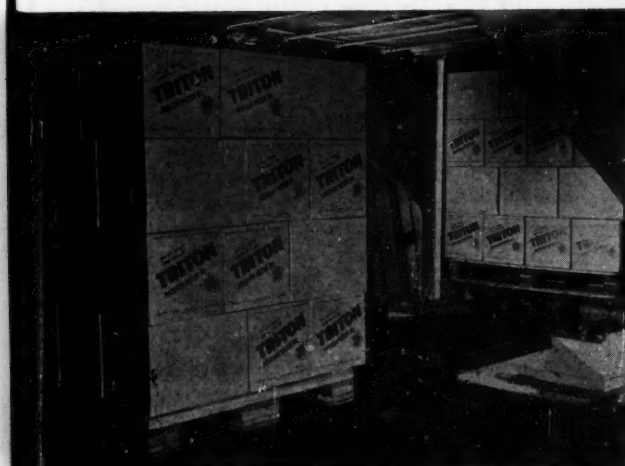
5

6



7

8





LAMSON Conveyors

SPEED assembly line production.

SPEED flow of materials.

SPEED handling of finished products.

SPEED. That's the word that best describes Lamson Conveyors. In plant after plant, Lamson Conveyors—specifically applied for specific needs—cut materials handling costs at least 30%! And that's a saving. A big saving.

SAVE Wasted Effort... Handling Time and Valuable Floor Space.

In the large Westinghouse Home Radio Division Plant at Sunbury, Pa., the interlocking system of Lamson Conveyors eliminates bottlenecks . . . saves wasted effort . . . and many handling costs.

In the main illustration, radio receivers literally "roll" up to the inspectors on the lower conveyor line. After rigid inspection, they go to the cabinet section for installation and final inspection via the overhead Lamson Conveyors.



No wasted time. No wasted effort. No wasted footsteps.

Mail this coupon today for Free Booklet!

Read how Lamson Conveyors can cut
your handling costs up to 30%!

Lamson Corporation
1300 Lamson Street
Syracuse 1, New York

Please send me further information about your CONVEYORS.

I am interested in moving _____
(Type of product or material)

Name _____

Position _____

Company _____

Address _____

pallets automatically. A fork truck feeds empty pallets to the machine and removes the loaded ones. The loader is designed to lock-stack the cases and has a production capacity of 15 cases per minute. It automatically ejects pallets loaded four layers high, 10 cases to a layer, onto a gravity conveyor as shown in one of the illustrations.

The equipment consists of three sections. First, eight feet of live roller conveyor, which takes the sealed cases from the compression unit. Called the accumulator conveyor, it travels at the same 30-foot per minute speed as the case sealing machines. The second portion consists of a four-foot section of powered conveyor, traveling 60 feet per minute and known as the accelerator conveyor.

As the cases move along this conveyor, they press against brush-type micro switches. These connect to a control panel which sets up in proper sequence the full operation of the pallet loading machine. A signal light system permits the entire operation to be followed on the panel. At the beginning of the operations, and at the same time as the first case moves on to the accelerator conveyor, the bottom pallet from the pallet hopper (see photo) moves forward on a chain conveyor to a position slightly beyond the point of entry of the cases above. There it is picked up on an elevator and raised to a position directly beneath a steel plate (called a stripper plate), which has approximately the same surface area as the pallet. This plate receives the cases prior to their being palletized.

Nothing to Do But Watch

As the first case progresses on the machine rollers, it indicates on the control board and at the same time sets up the sequence cycle to be followed by the next 39 cases. The first three cases to enter the machine are accumulated end to end on the above mentioned rollers. With the approach of the fourth case, a pusher bar moves the first three from the rollers onto a strip-

per plate and then returns to its original position. The fourth, fifth and sixth cases are then lined up on the rollers in the same manner as the first three. With the approach of the seventh case, the second three are pushed onto the stripper plate and the rotary table attachment which is located under the accelerator conveyor rises slightly to give the seventh, eighth, ninth and tenth cases a quarter turn as they enter the machine. This places these last four cases side by side. When they are pushed on the stripper plate, the first layer of 10 cases has been completed.

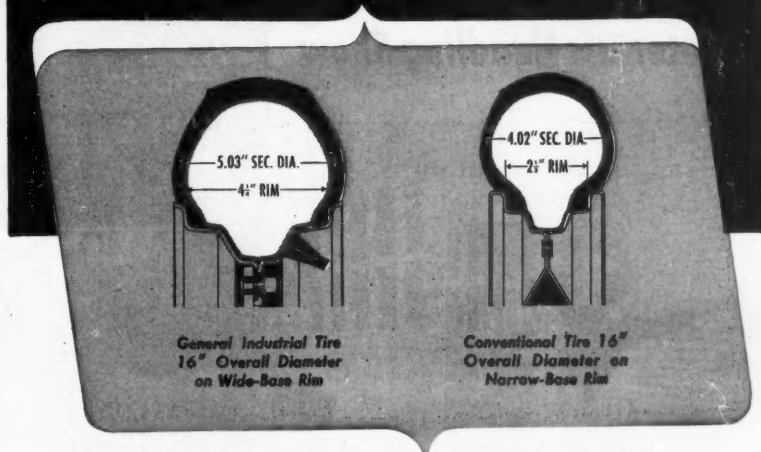
As the eleventh case approaches, it reverses the sequence on the control panel. The stripper plate moves forward and transfers the first 10 cases by depositing them on the pallet directly beneath. The pallet elevator then automatically lowers its load the equivalent of the height of the palletized cases. At the same time, the stripper returns to its original position to receive the next 10 cases.

The sequence is then reversed to load the cases in a four, three, three order to lock-stack this and all future layers. With each deposit of 10 cases on the pallet, the elevator is lowered sufficiently for the stripper plate to clear the palletized cases. In this alternating manner, the pallet is loaded and ejected from the machine onto a take-away gravity roller conveyor. An empty pallet replaces the full one on the elevator, and the cycle is repeated.

The loaded pallets are removed from the take-away conveyor by a fork truck. The truck, besides servicing the pallet loading machine, stacks and destacks the loads in the adjacent warehouse and delivers the outgoing loads directly into the carriers at the shipping docks.

The equipment described and pictured on these pages has enabled us to achieve a production of 10,800 cans per hour. The installation has sufficient capacity to handle an ultimate of 16,200 cans per hour when a larger filling machine will be installed.

Wide Base General Industrial Pneumatics SAVE TIME • MONEY • LABOR

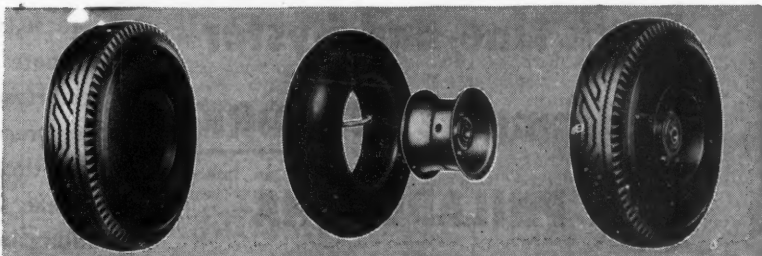


WIDE BASE MEANS

- Greater load capacity at high and low speeds
- Better cushioning of loads and equipment

General's exclusive wide-base rim makes the big difference. Heavier loads move faster, easier. Fragile cargoes and delicate equipment roll smoothly . . . breakage is minimized. Investi-

gate today. You'll find General Industrial Pneumatics do a better job on any mobile equipment where small tires and wheels are used.



Available in complete assemblies of tire, tube and rim or tire only

O. D. SIZES 8 INCHES TO 22 INCHES

Write Today New catalog shows how to save time, labor, money with General Industrial Pneumatics. Dept. 2, The General Tire & Rubber Co., Akron, Ohio.

THE GENERAL TIRE & RUBBER CO.
AKRON, OHIO



HYSTER
DEMONSTRATES
*at the National
 Materials Handling Show*



**See the Hyster Industrial
 Truck Line and Hyster
 Attachments AT WORK
 at PHILADELPHIA
 Convention Hall...
 January 10-14, 1949**

★ The entire line of Hyster fork-type lift trucks, straddle trucks, mobile cranes—with capacity ranges from 2,000 lbs. to 30,000 lbs. will be on exhibit. But even more important, Hyster trucks, with special Hyster attachments, will be at work. These practical demonstrations will show you the time and money savings that Hyster can make for you on your own materials handling jobs.

HYSTER COMPANY

THREE FACTORIES



2931 N. E. Clackamas St. Portland 8, Oregon
 1831 North Adams Street Peoria 1, Illinois
 1831 Meyers Street Danville, Illinois



The
"LITTLE HUSTLER"
TRANSFERS STAMPINGS
AS FAST AS PRODUCED!

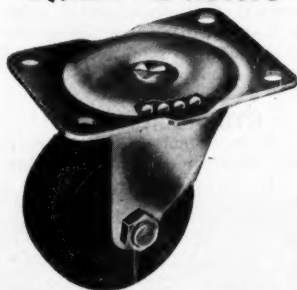
The "Little Hustler" is fully portable and quickly adjustable to a wide range of applications. The 8 foot size shown above has a maximum delivery height of 81 inches at 45° and 50 inches in a horizontal position. Made in 13 models: 4'-6"-10 and 12 ft. long, by 12", 18" or 24" wide. Also special sizes. Send for circular LHC. We design and manufacture permanent conveyor systems and all types of SPECIAL EQUIPMENT.

MAYFRAN

ENGINEERING, INC.

Development Engineering and Manufacturing
1710 Clarkstone Rd. Cleveland 12, Ohio.

Roll Along
WITH
U.S. Casters



PRESSED STEEL CASTERS

- Immediate Delivery
- Quality & Price Right
- Jobbers Solicited
- Open Territories

UNITED STATES TUBE & FOUNDRY CO., INC.

491 Wortman Ave.
Brooklyn 8, N.Y.
Nightingale 9-2410



New Sherman
JUMBAGS
Slash PACKING COSTS

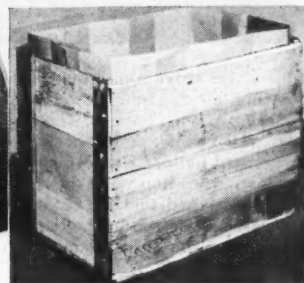
It's here! A jumbo bag made by a revolutionary new machine. Now! Uniformity and greater strength *plus* real packing economies for everyone who uses or needs giant-sized bags.



◀ Shrouds for machinery or palletized products



▲ Kraft covers for shipping or storage



▲ Waterproof case liners

JUMBAG FACTS

1. Accordion folded. No time-consuming interfolds. Snaps open instantly in a single operation. Quicker, easier to use.
2. Fits any shape or proportion perfectly. One bag will fit several differently proportioned articles. Cuts down inventory.
3. Self-closing air vents — another new feature, optional, at no extra cost — eliminate air pockets and save time.
4. Six standard stock sizes

- from chair-size up to 60 inches high and 12 feet wide. Special sizes made to order.
5. Made of new strong-fibred kraft in light, medium, and heavy weight. Also available in waterproof, creped, or crinkled — neutral or stain-proof.
 6. Prompt deliveries. Stock sizes ready for instant delivery through 200 paper distributors. Immediate service on special sizes.
 7. Low cost — substantial savings over hand-made bags.

Sherman PAPER PRODUCTS CORPORATION

Newton Upper Falls 64, Mass., Los Angeles, New York, Chicago

Rush me FREE TRIAL Samples of Sherman JUMBAG and folder giving full details. 7

Name _____
Address _____
City _____ State _____

**SEND TODAY
FOR FREE
SAMPLE**

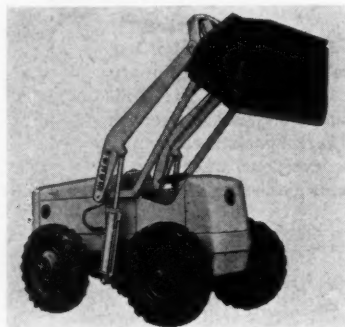
NEW

PRODUCTS

For additional information on these products, write Dept. 5, Flow Magazine, 1240 Ontario St., Cleveland 13, or use postcard bound into this issue.

TRACTOR-SHOVEL UNITS

NP1—The Frank G. Hough Co. has added a new Payloader to its line of tractor-shovel units. Known as the model HM Payloader, it features a



four-wheel drive and a power boosted steering mechanism. It has a bucket capacity of 6000 pounds. The model has a 76 HP engine, four-wheel drive and large road builder tires which facilitate off-road operation. The bucket booms are so designed that an automatic digging action is given to the bucket, independent of the forward motion of the tractor.

PORTABLE ELEVATOR

NP2—The Barrett-Cravens Co. announces a new all-purpose portable elevator with a capacity of 500 pounds. Operated by one man, it is adaptable to



varied tasks where loads must be lifted from one to five feet. Applications in-

clude placing dies in presses or die racks; loading and unloading motor trucks; piling cases, barrels or bales; elevating materials into storage, etc. The crank is turned in one direction for raising the platform and reversed for lowering. Capacity loads are easily raised or lowered, and can be stopped at any point on the way.

PILER AND BAG FLATTENER

NP3—This Flexoveyor portable piler and bag-flattener has been recently added to the line of equipment manu-



factured by Flexoveyor Mfg. Co. Units are built to elevate bags from 12 to 20 feet at an incline up to 70 degrees, while simultaneously flattening them. The unit is electrically operated and may be moved around the plant under its own power. Endless steel coil springs running over grooved steel rollers form the lower conveyor and hugger boom which produce kneading and pressing action to eliminate air from paper bags.

BATTERY CHARGE INDICATOR

NP4—To prevent battery operation in an overdischarged condition, the Gould Storage Battery Corp. announces a new charge indicator which gives the mo-



mentary charge condition of the battery. The dash-board mounted instrument reports the state of discharge at any instant, and offers tamper-proofness against persons using the truck at

the expense of the battery. The indicator is marked off into four sections, each of a different color. Green indicates a one-half to full charge; yellow a one-quarter to one-half charge; red a zero to one-quarter charge; and pink indicates the battery is being used in an overdischarged condition.

PACKAGE CONVEYOR

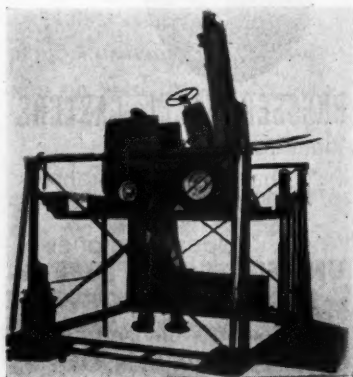
NP5—A newly-designed package conveyor has been introduced by George Haiss Mfg. Co. The conveyor, model 485, is designed to handle bags, boxes, bundles, cases, cartons, crates, etc., weighing up to 500 pounds, at the rate of 30 per minute. It is available in standard lengths of 15 to 50 feet, and in standard widths of 14, 18, 24, and 30 inches. Various types include the portable elevating types with pneumatic wheels; elevating type with steel wheels; elevating type with caster mounting; and elevating type with feed and discharge sections.

POWER TRUCK

NP6—A new model power truck, designed to pull live and semi-live skids completely by power, is announced by Lift Trucks Inc. The unit, Hydroelectric KTL, has a wheel base of 40" which permits short turns in close quarters. Two speeds forward, two in reverse and dynamic brakes are all finger tip controlled. Other features of the new truck include two front driving wheels and a differential transmission sealed in lubricant. Rated capacity of the model is based on pulling a semi-live skid loaded with 4000 pounds.

HYDRAULIC LIFTER

NP7—Development of an electric hydraulic lifter for servicing all makes of fork lift trucks, industrial trailers and

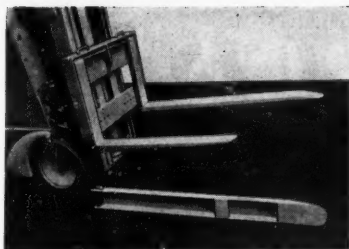


platform trucks is announced by Service Caster & Truck Corp. Built in 6000-

pound and 12,000-pound capacities, the maintenance lifter's open platform elevates trucks to a proper height for lubrication, inspection and servicing. Safety features include hooks which lock into the legs at any point during the platform's rise, and safety-pipes which drop from the platform to the floor once proper height is attained. Dead-man control is a further precaution.

FORK EXTENSIONS

NP8—Lewis-Shepard Products Inc. has made available a line of slip-on-fork extensions which make possible the handling of loads of different lengths efficiently with the same fork truck. When longer loads are to be handled, a pair of the extensions is placed over the

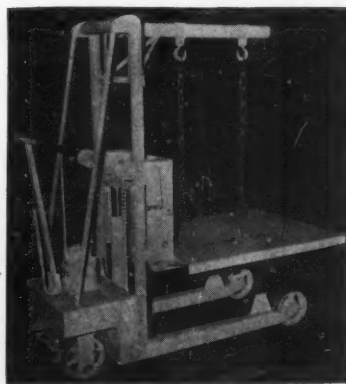


truck forks. Units are of welded steel and are available with various styles of ends: tapered ends for handling rolls of paper; standard ends for picking up pallets, and chisel ends for handling bagged or other loose material. Attachment is accomplished by slipping the

extensions over regular forks and locking them securely at the heel of the forks by means of stud and latch.

DIE-HANDLING TRUCK

NP9—The standard Lyon-Raymond hydraulic high lift truck, designed for handling 3000-pound loads, is now furnished with boom and chains for die separating. The boom extends 36" and the hooks are fastened to sliding rings so that large or small dies can be handled on the 30" x 36" platform. Elevation is accomplished by a heavy-duty



two-speed hydraulic hand pump. A winch with 15 feet of steel cable is provided for drawing the dies from presses.

SULKY TOWING DOLLIES

NP10—A line of sturdy new sulky towing dollies that enables the operator to ride while using a power sweeper is announced by the Wilshire Power



Sweeper Co. The sulky is of steel construction throughout, equipped with the same size rubber-tired zero-pressure air wheels as the sweeper. Easy to attach, it is especially designed with a low center of gravity for extra stability. Equipped with its own brake, it is maneuverable. When attached to the sweeper, the complete unit has a turning radius of only 90 to 125 inches.

OFF-ROAD MOBILE CRANE

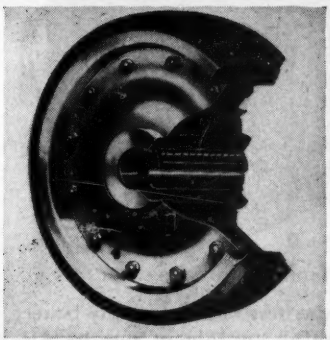
NP11—The R. G. LeTourneau Co. is manufacturing a full-revolving, off-road



mobile crane, known as the EC-7 Tournacran. The electrically operated model facilitates lifting, carrying, and spotting. Mounted on large, low-pressure tires, the rig is designed for travel
(Turn to page 110)

DARNELL CASTERS & E-Z ROLL WHEELS

*for
Every Type
of Floor*



Write _____

FOR NEW 192 PAGE
DARNELL MANUAL

DARNELL CORP. LTD.

LONG BEACH 4, CALIFORNIA

60 WALKER ST. NEW YORK 13, N.Y.

36 N. CLINTON CHICAGO 6, ILL.



HERE IT IS!

THE NEW



CHARG-O-MATIC

for
BATTERY-POWERED ELECTRIC TRUCKS

Single or Multiple Circuit Charging

• The CHARG-O-MATIC is an entirely new Hertner model, designed to provide unequalled battery charging performance, high in efficiency and low in operating and maintenance costs.



✓ CHECK THESE CHARG-O-MATIC FEATURES:

MOTOR GENERATOR: Mounted in horizontal position. Operates at safe, slow speed of 1750 R.P.M. High quality, over-size, sturdy, long life.

AUTOMATIC SHUT-DOWN CONTROL: Precision temperature-compensated voltage relay as standard equipment.

PILOT LIGHT: Indicates when set is in charging period.

TIME CLOCK SWITCH: Adjustable for longer or shorter charge.

HEAVY-GAUGE REINFORCED STEEL CABINET, with welded steel frame.

PACKAGED UNIT: Nothing else to buy.

FULLY AUTOMATIC: Plug in battery and set charge control switch. Cuts off automatically.

APPROVED MODERN DESIGN: Cabinet has inclined control board at "top-of-desk" level—meters easily read. Occupies minimum space—does not have to be fastened down.

For the best value in quality battery charging equipment see the All-New Hertner CHARG-O-MATIC. It is designed in accordance with Battery Manufacturers' recommendations and meets the standard specifications of the Electrical Industrial Truck Association.

See our display, Booth 224, Materials Handling Exposition, Philadelphia, Pennsylvania

The Hertner CHARG-O-MATIC is available through your nearest electric truck representative. Other single and multiple chargers available for all types of batteries. For details write for Bulletin No. 116 and No. 117.



THE HERTNER ELECTRIC COMPANY

12690 ELMWOOD AVE. • CLEVELAND 11, OHIO

A General Precision Equipment Corporation Subsidiary

MOTORS • MOTOR-GENERATORS • GENERATOR SETS

STORAGE YARD FORK TRUCK DOUBLES IN DIPPING ROLE

FLEXIBILITY of the modern fork lift truck is aptly illustrated at Tractor Works of International Harvester Co. where one is used in anti-corrosion process. For coating unwieldy and heavy items which cannot be handled by the normal corrosion pretention facilities, an outdoor dipping tank has been installed adjacent to a storage



area. The major portion of the tank is sunk into the ground.

The loads of material to be dipped are held together by means of chain slings. The loads are suspended from forks of a lift truck and lowered into the tank. Since the outdoor dipping operation is of sporadic occurrence, the storage area fork truck eliminates the need for installation of permanent equipment. The tank is covered when not in use.

DICO Float-Away BARREL & DRUM TRUCK



**MOVES
THEM
EASY**

**STANDS
ALONE**

**AMAZING
Performance**

One man handles heaviest drums all day with a "Float-Away" without usual fatigue. Unique in design—the wheels and axle never leave the floor when loading. Truck toes slide forward under barrel as carriage retracts to gently receive the drum. A light weight, perfectly balanced truck that never has to be lifted. Exclusive compression cylinder enables the truck to stand vertically—easy to store out of way—always handy. Unbreakable, adjustable chime hook for straight and bladed drums. Roller bearings, all metal or rubber tired wheels.

ASK YOUR JOBBER, or write
DICO MFG. CO. Division

DICO CORPORATION
404 S.W. 16TH ST., DES MOINES 5, IOWA

SWIVEL CASTERS

• Double
Ball Race

• Semi-Steel
Wheel



High pressure lubricating fittings in wheels as well as hangers. Grease retaining chambers prevent destruction of balls. Large balls in upper outer races take load as well as side thrust and both races are protected from dust and water by over-lapping lips on plates and hangers. Swivel nuts provided for adjusting bearings in case of wear. We serve resale dealers and original equipment manufacturers.

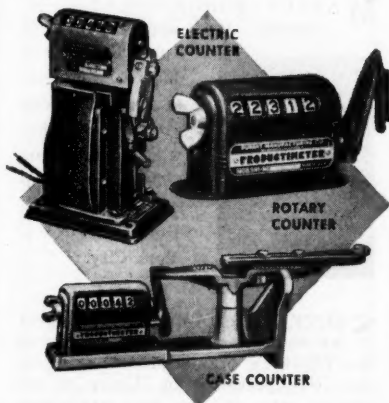
SPECIFICATIONS

Caster No.	Wheel Size	Bolt Hole Centers	Height	Capacity
46E4	4x2	3x4	5 3/8	650 lbs.
46E4C	4x2	2 1/2 x 4 1/2	6	650 lbs.
46E5	5x2	3x4	6 3/4	700 lbs.
46F6	6x2 1/4	4 1/4 x 5 1/2	8	750 lbs.
46H6	6x2 3/4	4 1/4 x 5 1/2	8 1/2	1000 lbs.
46E8	8x2	5x6 1/2	10 1/2	1000 lbs.
46H8	8x2 3/4	5x6 1/2	10 1/2	1500 lbs.

Buffalo CASTER & WHEEL CORP.

182-6 Breckenridge St., Buffalo, N. Y.

(PRODUCTIMETERS) *Count Everything*



Productimeters assure accurate count on every job . . . help prevent losses and maintain maximum production. There's a Productimeter for practically every industrial need.

DURANT MFG. CO.
1944 N. Buffum St. 844 Orange St.
Milwaukee 1, Wis. Providence 3, R. I.
Representatives in Principal Cities

Send for
Catalog
No. 100

PROD
SINCE 1879 *Speedometers OF INDUSTRY*

ROSS

HEAVY DUTY LIFT TRUCK



CUTS HANDLING COSTS 50% for The Imperial Desk Company, Evansville, Indiana



All lumber used in the manufacture of Imperial's well-known quality office furniture is handled by a Ross Lift Truck. Over a period of two years, this machine has

consistently moved and stacked this lumber at a saving of 50% of former cost!

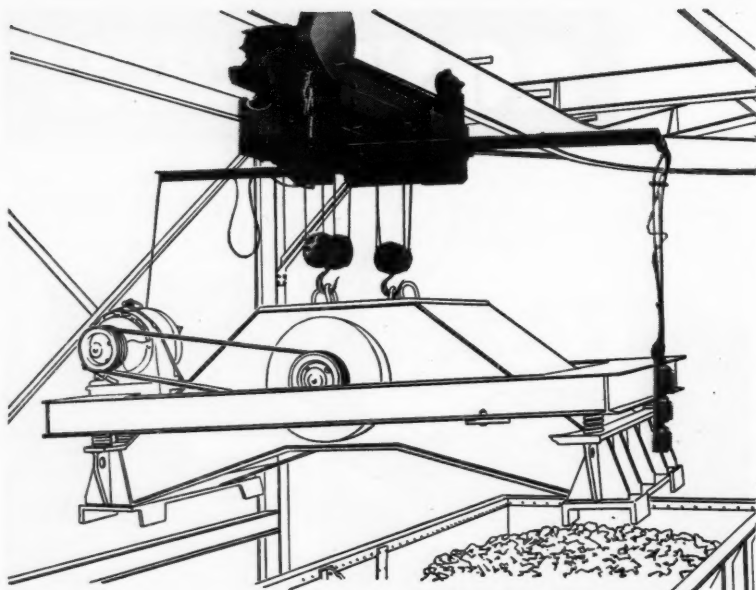
Arriving at the plant via rail or truck, the packaged lumber is unloaded, stacked in the yard for air-drying then transported to the mill. These operations are accomplished by the Ross in a fraction of the time required by former handling methods.

This is another of the many examples of what Ross Lift Trucks can do for you. Why not get all the facts about Ross?



THE ROSS CARRIER CO.

280 MILLER STREET, BENTON HARBOR, MICHIGAN, U.S.A.
Direct Factory Branches and Distributors Throughout the World



For a faster **SHAKEOUT**, Count an R & M Hoist **IN**!

Speed and efficiency of car unloading hit a new high with specially-designed Robbins & Myers Twin-Hook Hoists on the Robins Car Shakeout.

ADAPTABILITY . . . Engineered to specific-duty requirements, Robbins & Myers Hoists are adaptable for all types of shakeout installations. Screw-type, upper and lower limit switches are adjustable to permit locating of shakeout at normal hopper heights. Flexibility of controls enables operator to position the shakeout accurately for use on hoppers of varying heights. Trolley wheels on units equipped with motor-driven trolleys are adjustable from 10" to 20", depending on the size of the I-beam used.

DEPENDABILITY . . . Sturdy construction of every detail assures continued service; prolongs wear-life of all equipment. Heat-treated alloy steel hoist gears run on anti-friction bearings.

FEATURES . . . Blocks are reeved with two independent steel cables. Either will hold the weight of the shakeout unit. Safety latches on the hooks eliminate unintentional releases of the load. Interlocking limit switches keep trolley motor from running until the shakeout clears the car; prevent operation of the shakeout motor until shakeout is positioned on another car.

SPEED . . . 16 F.P.M. (60 cycle) on lifts to 25 feet.

CONTROL . . . A push-button control panel, furnished as part of the hoisting mechanism, energizes the shakeout motor and the hoist motor; activates the trolley drive if the unit is motor driven. Contained in a dust-proof case, this equipment provides independent control of the hoist and shakeout from a single station.

Everywhere lifting is done, R & M Hoists show comparable efficiency. Available in capacities from 250 to 20,000 lbs.

Write for full particulars—"TAKE IT UP WITH R & M."

ROBBINS & MYERS • INC.

SPRINGFIELD 90, OHIO • BRANTFORD, ONTARIO

MOTORS • HOISTS • CRANES • FANS • MOYNO PUMPS

MEN IN THE NEWS . . .

(Continued from page 75)

Yale & Towne Mfg. Co., has been elected a member of the board of directors, it was announced by Joseph A. Horne, board chairman.

THE A. B. Farquhar Co. has appointed A. H. Dill as western district manager. In this capacity, he will serve as direct



factory representative covering sales and service outlets located in the far western states and western Canada.

A PPOINTMENT of Russell Inwood as vice president in charge of



manufacturing and engineering was announced by James R. Sebastian, president and general manager of The Rapids-Standard Co. Inc. Inwood will be responsible for production engineering, product development and research engineering, and all manufacturing activities.

MARKET FORGE CO. has announced the appointment of



Robert P. Rudy as district manager of the New York area. His office will be in Room 5630, Grand Central Terminal Building, New York City.

STEVENS H. HAMMOND, president of Whiting Corp., has announced the following promotions: G. E. Seavoy, vice president in charge of the process sales division, who will direct all field sales operations, including advertising, field erection and service. M. J. Rice is the new vice president in charge of industrial sales division. He will direct all of the company's product sales divisions.

CARL J. SHARP, president of Acme Steel Co., Chicago, announced the promotion of Robert A. Morris to assistant to the president. F. R. Grove, Jr., formerly assistant advertising manager, was promoted to the position of advertising manager.

*Everything
Moves!*

at the

**"ISLAND"
BOOTH 207**

**Materials
Handling
Exposition**

• JAN. 10-14 •

**CONVENTION HALL
Philadelphia, Pa.**

See the first showing of our Package
Power Unit complete with Medium Duty
Belt Conveyor,—and

- Bulletin No.
- Styl-O-Veyor Port-
able Belt Conveyor
BoosterHP-20
 - Ultimate Double-
Flex Chain "Merry-
go-round" Convey-
orP-C18-1A-1
 - Ultimate Floating
Bed Live Roller
ConveyorPB-60-1A-1
 - Ultimate Medium
Duty Gravity Rol-
ler ConveyorGP-28A
 - Ultimate Reversible
Portable Roller
Gravity Conveyor ..HP-1
 - Ultimate Medium
Duty Belt Convey-
orPB-60-1A-1
 - Ultimate Portable
Cleated Belt Boost-
erFP-27
 - Medium Duty
Package Power
Unit11A
 - Double Roller 90°
CurveGP-28A
 - Unitized Convey-
or TableIP-1

Return (filled in) coupon—get tickets to
Shows and advanced product information
bulletins. And don't miss the first show-
ing of our ALL STAINLESS STEEL LINE—
Canners Show—Jan. 14-19, Atlantic City,
N. J.

Island Equipment Corp.

Brewster Rolls Royce Building
27-01 Bridge Plaza North,
Long Island City 1, N. Y.

Please send the following—

Qty. () Tickets for Materials Han-
dling Exposition.

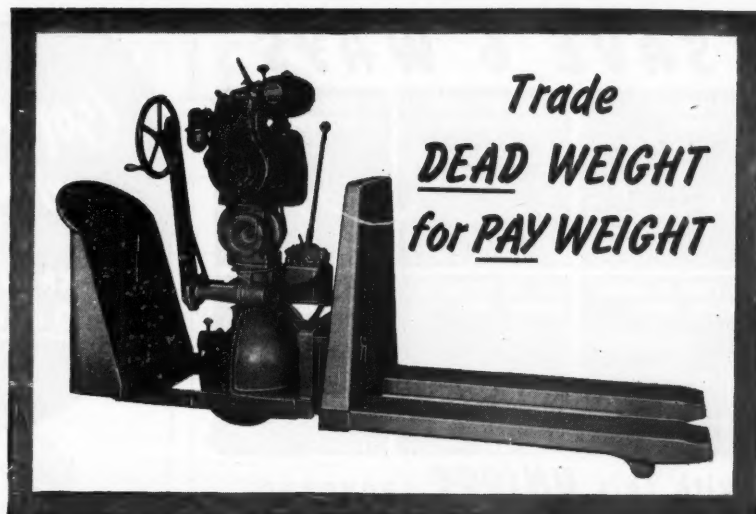
Qty. () Tickets for the Canners Show
and Bulletin Nos.

Name.....

Title.....

Company.....

Address.....



WITH THE 3000 POUND PAY LOAD

truck-man pallet toter

You know what it costs, per ton, to 'spot' material with a hand truck—or a heavy stacking truck. But there is a practical way! That's why we designed the Truckman PALLET TOTER; pay-load, 3000 pounds and more—weight 920 pounds, ready for action! It incorporates the same dependable power turret you found so successful in Truckman Model D Hydraulic Lift Truck and Truckman Platform Utility. It's agile, rugged, simple to operate and maintain. It has scores of features important to you, including:

- Nationally known Wisconsin gasoline engine, famous for faithful service...
- Hour-after-hour efficiency—no battery charging lay-ups or equipment costs...
- One-lever control of clutch and brake. Powerful hydraulic fork lift...
- Rubber insert load wheels to soften jolts, pneumatics for driving traction...
- Safe, comfortable, untiring handling by operator who rides with the load...
- Well balanced design, heavy welded construction, ready for hard service.

To top all this, your Truckman PALLET TOTER is available for \$850, f.o.b., Jackson, complete, including 48" forks. And you can put it to work without buying a single "extra." Yes, this is your answer where costs count: PALLET TOTER, a light, economical unit for horizontal movement of pallet loads. Write for our new Model DF Bulletin—or the name of our distributor in your area.

\$850

**F.O.B.
JACKSON**

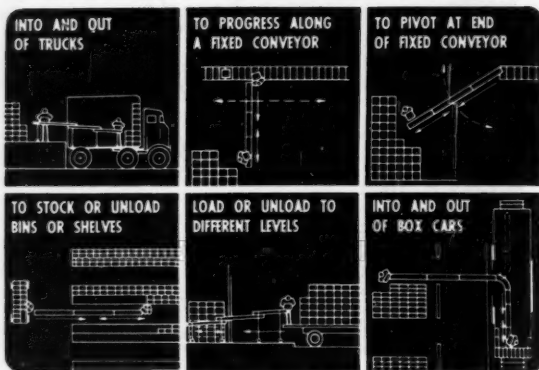
Ask Any Operator Over 70 Truck-Man distributors in principal cities provide standard service.

truck-man INC.

141B West Ganson,

Jackson, Mich.

SAVE 6 WAYS



with this **UNIQUE** conveyor

TELESCOPIC - to follow the load.

The Conveyor is easily "pulled-out" or "pushed-in" for quick pick-up and delivery.

PORTABLE - to move in a minute.

Quickly rolled from one job to another and locked in position.

ALWAYS READY - no wasted set-up time.



Write for complete information

WILKIE COMPANY

5520 ARCH STREET, PHILA. 39, PA.

IN CANADA: DOMINION EQUIPMENT CO. 5929 DECARIE BLVD., MONTREAL

*Copied-but
never duplicated!*

**KRANE KAR is the
ORIGINAL**



KRANE KAR lifts, carries and spots loads at sides, as well as at front.

Write for Bulletin No. 79.



THE ORIGINAL SWING BOOM MOBILE CRANE
WITH FRONT-WHEEL DRIVE AND REAR-WHEEL STEER
1½, 2½, 5, AND 10 TON CAPACITIES

KRANE KAR

SILENT HOIST & CRANE CO., 888 63rd ST., BKLYN 20, N.Y.

ONLY

**KRANE KAR HAS
ALL THESE FEATURES**

Stability without stabilizers
100% vision in all directions
Load and boom operations, and
crane travel, performed simultaneously or independently

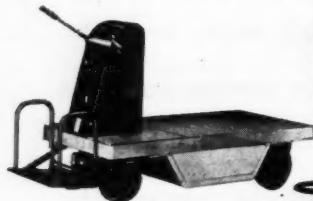
Automatic limit stops for all crane operations

Automatic braking of load and boom

No tail swing and no part of crane passes over operator

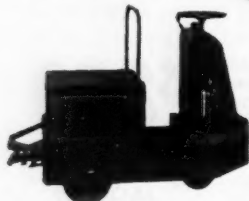
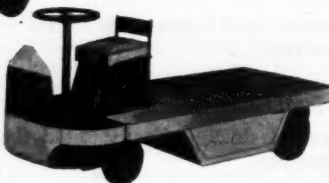
material handling

MOST OF YOUR TROUBLES ARE LITTLE ONES



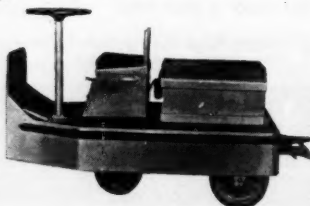
ORANGE MESSENGER PLATFORM. For shorter hauls and extreme maneuverability in dead-end aisles. Half ton carrying, 5 ton towing capacity.

BLUE PLATFORM. For longer hauls permitting greater operator ease and greater safety on down grades. Half ton carrying, 5 ton towing capacity.



DUAL TOW. Operator can walk or ride, inching trailer train while selecting drugs, food, hardware, automobile parts—then speed to destination. Hauls 5 tons.

BLUE TOW. For operator's ease on long hauls carrying laundry, hot food, instruments. For greater safety on down grades. Hauls 5 tons.



Better specify "PONY EXPRESS"!

80% of the units moved in your plant weigh less than 500 pounds. Yes, it is those *little* packages that clog the shipping room, slow your output. That's where the "Pony Express" takes over, for "Pony Express" is the complete line of specialized trucks for speedy delivery.

"PONY EXPRESS" highlights

- Low cost; light weight; sturdy; parts readily accessible.
- For loads too heavy for a man, too light for expensive cumbersome equipment.
- It's electric, fumeless, odorless, silent, no oil drip, no fire hazard, no fuel costs, amazingly low service costs.

**ROCKY MOUNTAIN
STEEL PRODUCTS, INC.**

DEPT. F-1, 1376 WALL STREET · LOS ANGELES 15, CALIFORNIA

OPPORTUNITIES

Men wanted Jobs wanted Lines available

Rates for "Positions Wanted" \$4.00 minimum for 25 words, each additional word 10c; bold-minimum, limit 25 words. For all other face type or all capitals, \$7.50 minimum for 25 words, each additional word 15c; limit 50 words. Box addresses count as five words. All insertions are payable in advance.

LINES WANTED

Manufacturers Representative desire additional lines. Experienced domestic and export sales of materials handling equipment.

INDUSTRIAL EQUIPMENT DIV.
International Worldmarket, Inc.
16 Court Street Brooklyn, N. Y.

AVAILABLE Manufacturers Representative 10 years experience selling Materials Handling Equipment to Government Departments. James F. Hardy, Barr Bldg., Washington 6, D. C.

USED EQUIPMENT WANTED

Wanted
Fork-Lift Trucks
Krane Kars
We Pay High Prices
For Used Material Handling
Equipment
A & A Machinery Corp.
1267 Flushing Ave. Brooklyn, N. Y.
Hyacinth 7-3331

POSITIONS WANTED

EXPERIENCED warehouse superintendent with extensive materials handling engineering background desires warehousing position. Thorough knowledge modern methods, streamlined warehousing, management responsibilities. College education. Box 1249. FLOW.

Over 25 years of merchandise warehousing and marine terminal operation experience in executive capacity, with special emphasis on material handling. Location secondary with good progress-

sive establishment with post war expansion plans. Can furnish unquestionable references of past business career and achievements. Have just completed contract with large merchandise warehouse organization as vice president and general manager. Also vast experience in industrial development work and cartage. Box 12248, Flow.

REPRESENTATIVES WANTED

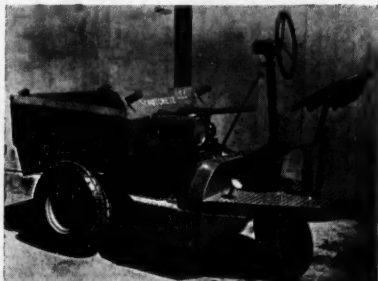
SALES REPRESENTATIVES WANTED—One of the largest manufacturers of floor trucks, trailers, casters and wheels requires representatives in territories listed here:

Portland, Oregon; Seattle, Washington; Memphis, Tennessee; Oklahoma City; Tulsa, Oklahoma; Little Rock, Arkansas; West Virginia; Toledo, Ohio; Spokane, Washington; Mobile, Alabama

Agents selected will be assigned exclusive territory. Advise the territory you cover, and names of other manufacturers represented. Address Box 1149.

DISTRICT MANAGER wanted by an old established Materials Handling Company for the Chicago area. An experienced sales engineer with a following among the manufacturers and distributors in this area is desired. A suitable drawing account against liberal commissions will be provided. All correspondence strictly confidential. Our organization knows about this advertisement. Box 1349.

SCOOT-CRETE THE WIZARD TRUCK FOR ANY CONSTRUCTION JOB!



Model
WDS-1
Scoot-Crete

Weights only 1000 lbs. Turns in its own length. 6 H. P. motor. 4 speeds. Plenty of power yet maneuvers with ease. Hauls concrete. Pours slabs.

Here is the outfit you have been waiting for. Saves time and cuts costs in moving all types of bulk materials. Handles a full mixer load in one trip. Rugged, heavy duty construction.

Scoot-Crete Industrial Truck

Maximum load 3000 lbs. Loading platform capacity 14.5 square ft. Overall length 7 ft. 8 in. Speed—up to 15 MPH. Heavy duty 5000 lb. capacity truck axle.



We will be glad to make a free demonstration on YOUR job. Write for descriptive circular.

GETTMAN BROTHERS

South Haven

Michigan

A FUNGICIDAL dressing for the treatment of leather goods, developed by the National Bureau of Standards, is said to provide complete protection of such goods from mildew. The growth of mildew on finished leather has previously been regarded as only a slight annoyance. Conditions in the South Pacific were, however, so favorable for its growth that it was necessary to develop preventive treatments for the use of the Armed Services personnel stationed in those areas. The Bureau's leather dressing compound has proven so effective that it is finding widespread application and has been incorporated into various government specifications.

Next Month See the Flow Article
"How to Sell Management on Material Handling"

A RIDE so easy that it will not crack an egg-shell is promised patrons of the new Dearborn Street subway in Chicago through the use of rubber tie plate pads. 40,000 of these plate pads are being made by the B. F. Goodrich Co., for the 3.9 miles of subway now being constructed. They are placed on top of the wooden ties after these are laid in the concrete foundation. The steel tie plates are placed on top of them, rails put into position and the whole assembly then bolted to the wooden tie. It is estimated that the resilient life of the rubber pads is about 50 years.

NEW PRODUCTS...

(Continued from page 103)

and work through the toughest off-pavement conditions. Its telescoping boom permits work with a minimum headroom of 8'9" while its maximum reach behind the center line of the crane wheels is 31'. Optional accessories are available.

DIGGSTER

NP12—A powered shovel, the Diggs-ter, has been developed by Dempster Bros. Inc. This model, #100, is



equipped with a one cubic yard dipper with teeth. It works interchangeably with a 1½ cubic yard stock-pile and two-cubic-yard coal bucket.

PUSH-PULL ATTACHMENT

NP13—A new push-all attachment for fork trucks, which handles loads

without pallets, has been developed by the Automatic Transportation Co.



Heavy paper on which the load is placed, is grasped by the attachment and pulled into carrying position. In the stacking area, the load is lifted in standard fork truck manner and pushed into place. The push-pull unit can be easily removed and standard forks attached if desired.

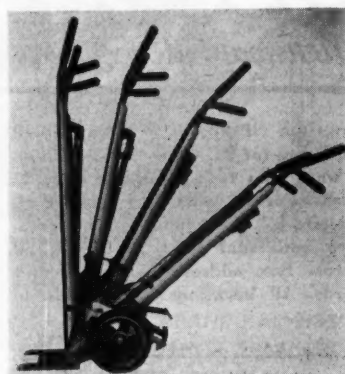
DRAG CLAMP

NP14—Merrill Brothers has introduced the "Drag Clamp," designed for the fast, safe conveying of cumbersome sheets, plates and flat stock. The unit is a one-piece jaw frame, mounted on a heavy shoe or base which acts as a skid for ease of movement. The clamp is attached by slipping the sheet between its jaws where it is automatically gripped. Any power unit can drag the sheet to the desired locations.

INDUSTRIAL HAND TRUCK

NP15—The Keen Mfg. Co. has developed a two-wheel industrial hand truck

which may be adjusted to different angles for carrying loads of various sizes. By depressing a foot pedal an



operator may regulate the angles ranging from 20 to 90 degrees. The toe plate has a cut-out recess for cradling barrels and drums, which avoids the necessity for pushing the plate underneath the load. Picture shows four operating positions.

FLEXIBLE CONVEYOR

NP16—Twinveyor is the name of a flexible spiral-type conveyor manufactured by Mechanical Handling Systems, Inc. Designed for the transportation of bagged goods, it employs two tabular external screws made to revolve to-

RE-NU TOP STEEL-BOUND SKID PLATFORMS



**BUILT TO
LAST A
LIFETIME**

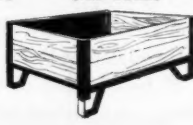
**500 LB. LOAD
UP TO 10 TONS**

Designed to fit your loads and equipment. Plain bolted construction for use with hand lift trucks or bolted and welded under frame with armored ends for rough handling by powered trucks. Special purpose skids can be equipped with end racks, shelves, stake pockets, crane hooks, rounded corners and other special features.

SECTIONAL BINS

ROLLAWAY SKIDS

SKID-BOXES



**LANHAM
COMPANY**

1401 S. 12th St., Louisville, Kentucky

Plant Efficiency goes up

...with ELECTROLIFT

The speed and ease with which one man operates ElectroLift to hoist and move loads up to six tons make for greater plant efficiency. And ElectroLift lowers handling costs by economical use of electric power as well as its savings in time and labor. See for yourself how this sturdy worm-driven hoist practically pays for itself. Write for complete details on monorail, motor-driven, trolley, twin-hook, rope guide, two-speed and other types.

ELECTROLIFT, INC. • 30 Church Street, New York 7, N. Y.

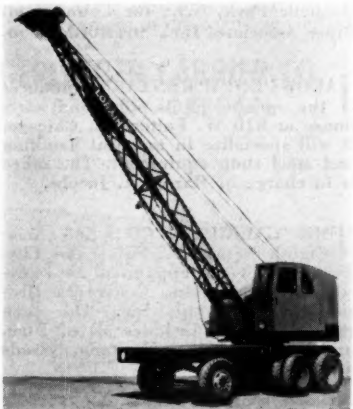
ward each other by a power head. The



standard construction provides for six eight-foot dual sections, jointed together. This assembly, with the addition of a power head, makes a complete unit of 50 feet. The dual spiral units are designed for maximum flexibility, and the joints will take a deflection in any horizontal or vertical plane. The release states that the units have a speed of 90 feet per minute.

SELF PROPELLED CRANE

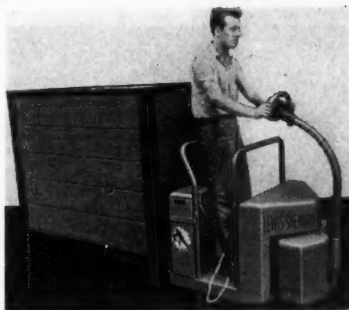
NP17—The Thew Shovel Co. has added a new wide-track self-propelled crane to its TL-20 series. The model has a lifting capacity without outriggers of 18,000 pounds at a 10-foot radius. It is designed for jobs where the loads are heavy and constant travel is neces-



sary, as in industrial yards. According to the release, considerable time is saved by eliminating the setting of outriggers. The crane is a single-engine, one-man operated unit, with four forward and four reverse speeds, and travels at speeds up to seven MPH. It can be equipped with over 15 different crane attachments to meet many material handling needs.

ELECTRIC LIFT TRUCK

NP18—A new electric lift truck has been added to the line of Lewis-Shepard "Master" Line of material handling equipment. Known as the "JackLift," it offers a "through corridor" where the operator rides. All controls are at the handle-head, convenient to the operator's finger tips. Other features: two speeds forward and reverse, lifting and lowering controls, horn and lock switch, and controls for brake which applies instantly when handle triggers are released. The truck can be oper-



ated either from riding position or by the operator walking at the front end.

TRAFFIC PAINT

NP19—A new quick-drying, long-wearing traffic paint has been developed by Lowebeo Inc. It is designed for marking factory aisle border lines, pull-out and storage areas, danger zones around unguarded docks and pits, warning symbols at blind corners, etc. The paint dries in approximately five minutes at 75 degrees F. or over. It is further claimed that it can be sprayed on with marking equipment, and is available in yellow, white, and black. Other colors can be developed on request.

The winners in the 1948 FLOW Cost Analysis Contest will be announced in the February issue.

GAS - ELECTRIC FORK TRUCKS

NEW and USED
REAL BARGAINS

Automatic Electric Fork Trucks
Automatic Electric—Portable Crane
Crescent Electric Platform Truck
Hyster—Pneu. Tired Trucks—2000#
—4000# Cap.
Transitier—Pneu. Truck—2000# Cap.
Ross—Pneu. Tired—Trucks—10,000#
—14,000# Cap.
Ross—Straddle Carriers
Link - Belt — Crane — Pneu. Tired —
12,000# Cap. NEW
Barrett—Yale—Hand Trucks
Comet—Gas Powered—Hand Trucks
Tractors—Pneu.—Gasoline—20 to 40
H.P.

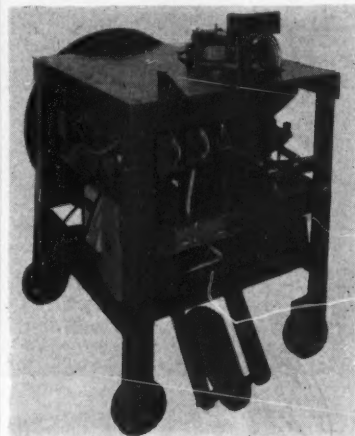
Priced Right

MILWAUKEE POWER
EQUIPMENT CO.

1111 W. Bruce St. Milwaukee 4, Wis.

POWER STRAPPING MACHINES

DESIGNED to mechanize and speed up the application of steel strapping to various types of containers and commodities, is a new line semi-automatic and automatic power strapping machines manufactured by the Signode



Steel Strapping Co. The machines pay out exactly the right amount of steel strapping, correctly tension the strap around the carton or item, apply and crimp the seal, and cut the strap. The models are operated by hand and foot levers, which are said to make the operation rapid and easy.



SEE A WORKING EXHIBIT of the complete line of Speedways Conveyors labor saving Material Handling equipment, including:

AGENTS

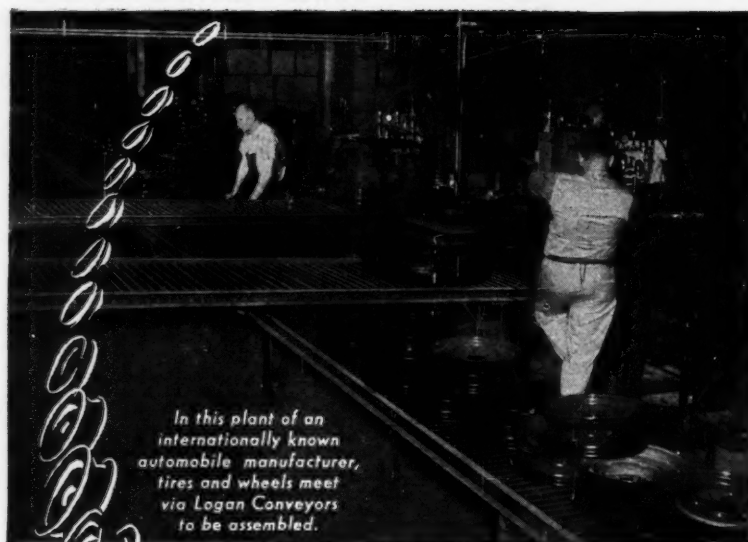
Be sure to stop in Booth 201 — there are some choice territories available on exclusive franchise basis.

10' sections
15-SW-10
90° curve
Speedglu
Speedlift Jr.
Y Flipswitch
Speedajust &
Permajust Stands

If you can't attend the Philadelphia Show, be sure to write us for our free illustrated literature.



1242 Niagara St. Buffalo 13, N. Y.
Represented and stocked by experienced materials handling equipment engineers in Principal Cities of U. S. and Foreign Countries.



HELPING WHEELS to get around

Logan Conveyors act as "match-maker" by delivering tires and wheels to assembly stations where operators combine them into one unit . . . send them swiftly on their way.

A typical example showing how Logan Conveyors provide manual-free movement of materials at the required productive pace and at convenient working heights for workers.

It is quite likely that an extension of your use of conveyors will provide that increased output so desirable today—without requiring a longer work day or greater effort on the part of operators.

Literature sent on request.



Logan Conveyors

LOGAN CO., INC., 558 CABEL ST., LOUISVILLE 6, KY.

News From The Sales Field

LEE S. MILLER & Associates: This company has been appointed by the Crescent Truck Co. as exclusive representatives in the western Pennsylvania and West Virginia area. Lee Miller and L. A. Whitney are in charge of the firm, which also maintains offices in Erie, Penn., and Wheeling, West Va.

APPOINTMENT of Norman J. Kilmer as sales representative for Ohio Electric Lifting Magnets in the Pittsburgh and Wheeling area was announced by The Ohio Electric Mfg. Co., Cleveland. Kilmer's offices are located in the Frick Building, Pittsburgh.

THE MAR-RAIL CONVEYOR CO., Pawtucket, R.I., has appointed the following as distributors of the company's Flo-Table, stock model belt conveyors. For northern New Jersey, Herbert B. Cumming, Inc., Route No. 17, Rochelle Park, N.J.; for Connecticut, Piper Associates Inc., Stratford, Conn.

JACOBS EQUIPMENT CO. announces the opening of its office and warehouse at 810 W. Fulton St., Chicago. It will specialize in material handling and steel shop equipment. The office is in charge of Harold A. Jacobs.

THE GALICHER CO., 545 West Eighth South St., Salt Lake City, Utah, has been appointed as representative of Robins Conveyors Division, Hewitt-Robins Inc. The company's territory includes all of Utah, and parts of Idaho, Montana, Nevada and Wyoming.

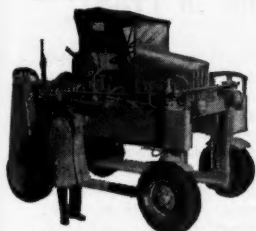
MONARCH ELECTRICAL CO., La Salle, Ill.: Appointment of Monarch as a distributor of the Hewitt Rubber Division's industrial hose, conveyor and transmission belting, and packing, has been announced. The supply firm serves industry within a radius of 75 miles, including Peru, LaSalle, Ottawa, Mendota and Streator. Partners are F. D. Rowlee and R. E. Waite. Personnel includes: credit manager-purchasing agent, N. J. Rowlee; secretary-treasurer, A. L. Perley; shop foreman, J. F. Bidasio and three salesmen and eight repairmen.

ACME STEEL CO. has moved its New York office to 11 East 44th St., New York 17, N. Y.

PLANT EQUIPMENT CO., Rock Island, Ill.: John Leland, former field engineer for Shaw-Box Crane & Hoist Co., has organized the Plant Equipment Co. to represent Barrett-Cravens Co., Shaw-Box, the Basick Co. and other material handling equipment manufacturers in the Rock Island-Davenport area. The company is located at 1524 Fourth Ave.

You are invited to visit
BOOTH Nos. 720 & 815
 at the
1949 MATERIAL HANDLING SHOW

Convention Hall, Philadelphia
 JANUARY 10-14



Drop by... let Gerlinger's qualified material handling experts show and demonstrate Gerlinger flexibility, economy and speed.

If you are a manufacturer of heavy industrial products, a stop at the Gerlinger booths should convince you of the many operational, economic and construction advantages of the complete Gerlinger line.

GERLINGER CARRIER CO.
 DALLAS, OREGON G-126



**IS WORKING SPACE
 A PROBLEM?**



Solve it with easily adaptable

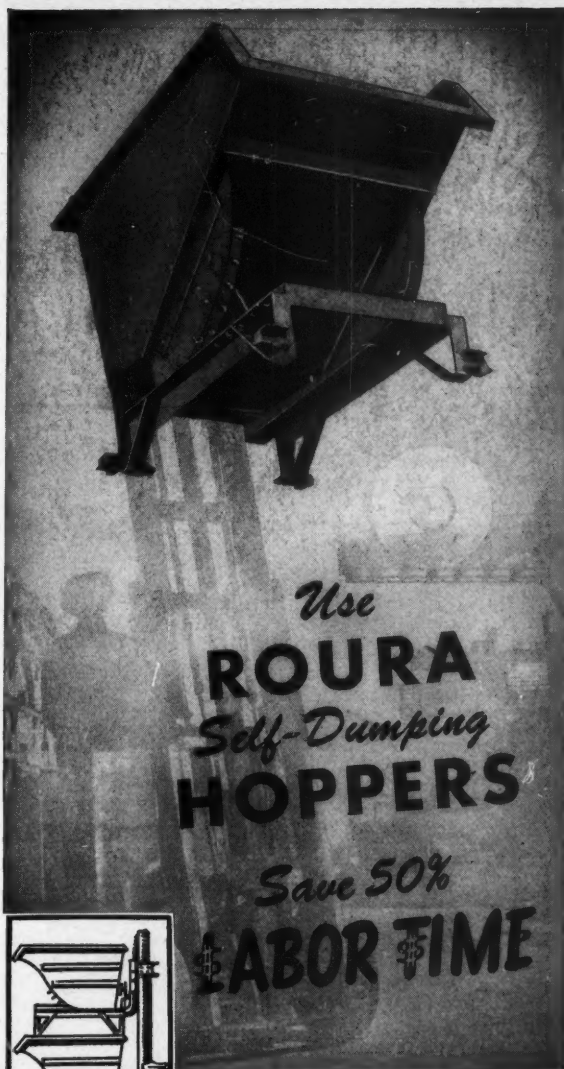
UNITABLE
 PORTABLE BELT CONVEYORS



SEND TODAY FOR ILLUSTRATED FOLDER

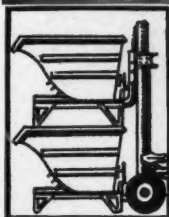
CONVEYOR SPECIALTY CO., INC.
 NORTH QUINCY 71 MASS.

Send today for complete catalog on Gravity Roller, Belt and Chain Conveyors.



Use
ROURA
Self-Dumping
HOPPERS

Save 50%
LABOR TIME



← Save valuable space
 — can be easily stacked

Handling wet or dry, hot or cold, bulky materials quickly and easily, the ROURA is simple to operate—only one man is required for distributing and unloading—and he does this in much less time than ordinarily required under old-fashioned manual methods. Thousands of Roura Hoppers (which fit any standard fork or platform lift truck) are in constant daily operation, serving and saving for such firms as Ford, Champion Porcelain, General Electric, National Carbon, International Harvester, etc.

By a simple lift of the exclusive release handle, the ROURA HOPPER dumps, rights, and locks itself securely. Sizes— $\frac{1}{2}$, $\frac{3}{4}$, 1, $1\frac{1}{2}$ and 2 cubic yards; the ROURA HOPPER can also be designed for flat trucks and in other sizes to meet specifications. Also, it can be equipped with special flanges that permit stacking to desired tiers for storage or future distribution of materials—conserving valuable floor space. Priced below all competition, the ROURA will quickly pay for itself many times over.

Write today for detailed brochure, "In Dollars & Sense."

ROURA IRON WORKS, Inc.
 1411 Woodland Ave. Detroit 11, Mich.

SEE! GREAT THINGS UNDER WATER
BOOTH 141
 1949 MATERIALS HANDLING SHOW - PHILADELPHIA
JAN. 10-14

AEROL Co. Inc. NO WHEEL ROLLS LIKE AN  **AEROL**
 GUARANTEED 70% FASTER POLLABILITY
 1823 East Washington Boulevard, Los Angeles 21, California

PUT THIS
"Weld-Bilt"
ELECTRIC PORTABLE ELEVATOR
To Work for YOUR Profit . . .

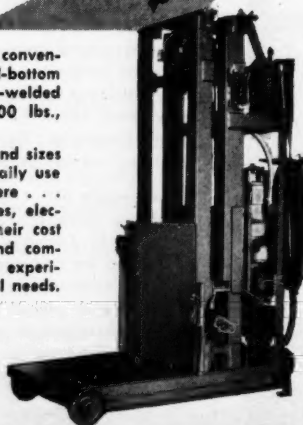
- Saves Valuable Floor Space
- Increases Production Space
- Improves Storage Facilities

Here's a husky "prime mover" for efficient vertical materials handling and storage in your shop or warehouse. It's the dependable WELD-BILT Electric Single Telescopic Portable Elevator, with motive power controlled by convenient push-button and automatic top-and-bottom electric limit switches. Wide, steel arc-welded frame. Capacities from 500 lbs. to 4000 lbs., and lifting heights from 4 ft. up.

This is only one of many different types and sizes of WELD-BILT Elevators installed and in daily use in hundreds of industrial plants everywhere . . . single or double telescopic or hinged types, electrically or hand operated. They'll save their cost in your plant, too. Write for catalog and complete details—or for recommendations of experienced WELD-BILT engineers on your special needs.

"Weld-Bilt"
PRODUCTS
—SINCE 1914—EQUIPMENT CORPORATION—BEND, WIS.

WELD-BILT Products include: Hydraulic Lift Trucks • Pallet Trucks • Platform Trucks • Two-Wheel Trucks • Skid Platforms • Tying Machines



WEST BEND EQUIPMENT CORPORATION

241-9 Water Street, West Bend, Wisconsin
MATERIALS HANDLING ENGINEERS



Another ¼-Million Razorback Pallets Sold in 1948!

. . . and 65% of these pallets were bought by former customers, which convinces us that Razorback Pallets give complete satisfaction! Our rounded-corner feature is increasingly popular as companies become acquainted with this feature that reduces damage to palletized merchandise and lengthens pallet life. Contact us or our representatives for information.

**ARKANSAS
 PALLET CORP.**

P.O. Box 794-A Phone 6474
 PINE BLUFF, ARKANSAS

THOMAS TRUCK
of Keokuk



Heavy Duty Casters

- Double Ball Bearing Swivel
- Smooth face metal or Rubber Wheels
- Our largest selling caster

Easy spinning and rolling features these husky Thomas Truck casters. Side thrust is carried by the small row of balls against the solid part of top plate. All castings of strong semi-steel, designed for floor truck service. Ribbed forks. Grease gun fittings. Write for catalog. Thomas representatives in principal cities.

Thomas Truck & Caster Co.
 3177 Mississippi River, Keokuk, Iowa

LITERATURE FEATURED IN ADS THIS MONTH

(Circle enclosed postcard numbers of manufacturers literature you wish to receive)

A-1. WHITING CORP. Bulletin H-101A illustrates and details the company's electric hoists.

A-2. DETROIT HOIST & MACHINE CO. Bound set of bulletins describes line of electric and pneumatic hoist, and electric traveling cranes.

A-3. MOTO-TRUC CO. Bulletin No. 49 relates information on its walkie-type high lift and transport type pallet trucks.

A-4. TOMOTOR CORP. Material Handling Analysis Guide discusses how to recognize, analyze and solve individual material handling problems.

A-5. GLOBE HOIST CO. Bulletin F3 describes full details on the savings possible with the company's lifts and elevators.

A-6. MARKET FORGE CO. Bulletins 1001 through 1101 illustrate and describe all types of material handling equipment manufactured.

A-7. CURTIS MFG. CO. Form C-7 relates details on the company's air hoists, air cylinders and air compressors.

A-8. MAY-FRAN ENGINEERING. Circular LHC describes portable conveyor designed for wide range of applications.

A-9. STANDARD CONVEYOR CO. Bulletin FL-19 shows applications of conveyors to all industrial fields.

A-10. ACME STEEL CO. Savings In Shipping describes decreased costs resulting from unit loads during transit.

A-11. FAULTLESS CASTER CORP. Catalog No. 156 describes the company's complete line of casters.

A-12. ISLAND EQUIPMENT CORP. Bulletins are available on conveyors in many designs, including stainless steel models.

A-13. ELWELL - PARKER offers "Industrial Logistics," a booklet on numerous truck applications to industrial uses.

A-14. THE STANLEY WORKS. Available is a folder on the improved Ace strapping tool.

A-15. THE MOTO-TRUC CO.'s Bulletin 49 describes this equipment in detail.

A-16. BOND FOUNDRY & MACH. CO. offers folders on its line of hand trucks, casters and lift trucks.

A-17. CRESCENT TRUCK CO. A free bulletin on its power trucks, made in 16 models.

A-18. STANDARD CONVEYOR CO. A descriptive catalog that covers installations in all major fields of industry.

A-19. COLSON EQUIPMENT & SUPPLY CO. A folder on how to save "muscle money" with the Cesco Dumpster.

Albion

QUALITY
CASTERS

"THE BEST FOR LESS"

for every Industrial use

With Patent-Pending Rolled-In Ball Race



HEAVY DUTY CASTERS in Drop Forged Steel with Genuine Timken Thrust Bearing. 6" up to 12" Wheel Diameters.



MEDIUM DUTY CASTERS in Semi-steel and Drop Forged Steel. Double Ball Race. 3" up to 8" Wheel Diameters.



LIGHT DUTY CASTERS in Semi-steel and Drop Forged Steel. Double and Single Ball Race. 3" up to 6" Wheel Diameters.

Available with Semi-Steel, Solid Rubber, Plastic, and Moldon Rubber Wheels.

TRAILER CASTERS—9 x 11 Top Plate—With 8", 10", and 12" Wheels.

SEND FOR YOUR CATALOGUE & PRICES TODAY

ALBION INDUSTRIES, INCORPORATED
ALBION, MICHIGAN

Sales Offices in Principal Cities

AMAZING LIGHTNESS

MAGCOA DOCKBOARDS

...made of Magnesium

MAGCOA Dockboards made of magnesium, the "miracle metal", can be handled by one man without the aid of truck, chain or hoist. They weigh less than a third as much as steel boards of comparable size and strength, and are reinforced like a bridge to carry extremely heavy loads. Their lighter weight speeds up loading and unloading operations... cuts down danger of hernia and mashed feet or hands. Non-sparking magnesium eliminates explosion hazard, too. Every MAGCOA Dockboard is designed to the particular requirements of your docks. Write us for further information.

If lightweight magnesium is applicable to any of your products, our facilities warrant your serious consideration.



Our Materials Handling Line
Includes MAGCOA Hand Trucks,
Barrel Skids and Grain Shovels

Made of Magnesium

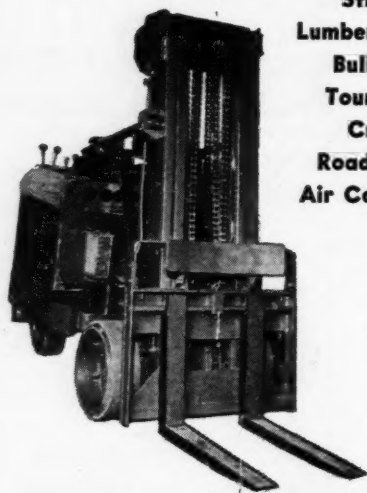


MAGNESIUM COMPANY

OF AMERICA
EAST CHICAGO, INDIANA

EASTERN DIVISION—30 Rockefeller Plaza, New York 20, N. Y.
WESTERN DIVISION—831 S. Flower Street, Los Angeles 14, Calif.

Gas and Electric Lift Trucks



Straddle
Lumber Carriers
Bulldozers
Tournapulls
Cranes
Road Rollers
Air Compressor

TERMS IF DESIRED: \$60-\$1000-1 YEAR

HARRY M. RIGHTER, Inc.

Phone ATLantic 1631 Cleveland, O. 7:30 a. m to 4:00 p. m.
Foot of W. 45th St.—Former American Shipbuilding Yard—First turn toward
lake west of High Level Bridge off Bulkley Blvd. 5 minutes from Square.
OWNED, OPERATED AND MANNED BY VETERANS OF WORLD WAR II

So Firm...

...so fully Loaded

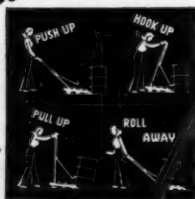
...so easy on the draw!

That's "George" the extra
special Tote Box Truck

No need to use the dangerous
"hernia method" for handling tote
boxes... "George's" hook and
handle leverage principle glides
boxes onto truck, safely, easily.
You can use a battery of them.

Ask the man who hauls one!

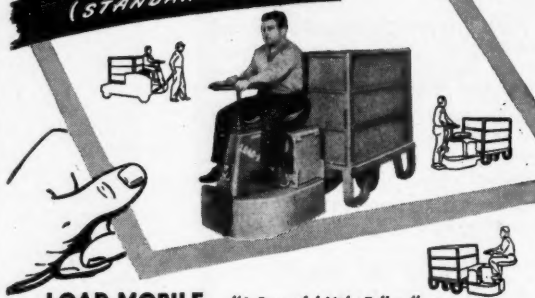
With apologies
to you know who



LET "George" DO IT

Send for Folder F
ROLOCK Incorporated
Fairfield, Connecticut

MATERIALS HANDLING (STANDARDIZED)



LOAD-MOBILE "A Powerful Little Fellow"

Battery operated lift truck is soundly engineered.
Power Unit only 30" x 34".
Large capacity cushion rubber wheels with sealed ball
bearings for least charging of battery.
3-way operating positions, assure safety and comfort of
the operator. Simple "Dead-Man" type control. Separate
motor-hydraulic lift.

Write for bulletins:

1001 Casters • 1002 Running gear • 1003
Floor trucks • 1004 Conveyor • 1005 Lift
trucks • 1006 Skids • 1007 Semi skids and
jacks • 1009 Special trucks, etc. 1101
Electric Lift truck.



MARKET FORGE COMPANY

Materials Handling Division
30 Garvey St., Everett 49, Mass.

TRI-TRUCK

CARRIES
ALL THE
WEIGHT

*First New Hand Truck
In Fifty Years!*

The revolutionary design TRI-TRUCK features a versatile
adjustable tripod support with a free swiveling third wheel
and leverage plate. It doubles the trucker's strength for
loading and unloading. Now inexperienced, lightweight
or older men can do any job.

TRI-TRUCK is adjustable to balance any weight...stands
up alone with load...keeps any load safely balanced
even on rough, wet or slippery surfaces...virtually
eliminates accidents, material damage, personnel
injuries. Write For Details.

Some Territories Still Available
For Distributors

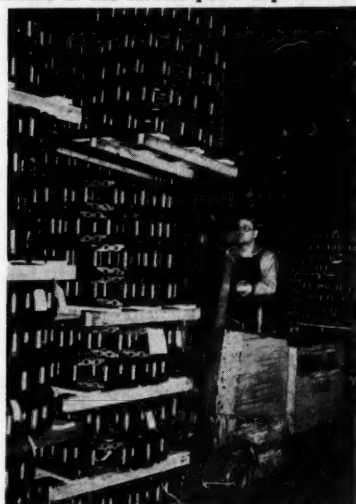
MELCOOL Manufacturing Company INC.
4730 AVALON BOULEVARD, LOS ANGELES 11, CALIFORNIA

DEPARTMENT F-1,

MATERIALS
HANDLING
MADE
EASY

LIGHT PALLETS DO HEAVY JOB

LIGHTLY constructed skeleton-type pallets are used for handling seven different types of tractor replacement chains in the service parts department



warehouse at Tractor Works of International Harvester Co. The pallet loads are stacked by a 2000-pound capacity telescoping fork lift truck. For safe operations and rapid selection of desired pallet loads, the truck is equipped with electric lights.—Courtesy, International Harvester Co., Chicago, Ill. Tractor Works.

Why ENGINEERED DESIGN PALLETS?

... because there is more to a pallet than meets the eye.

ENGINEERED DESIGN pallets are the result of careful engineering of your materials handling and warehousing needs. Complete details at no obligation.

Pallets Incorporated

Manufacturers of
ENGINEERED DESIGN Pallets
GLEN FALLS, N. Y.



EXHIBITORS—BY PRODUCTS...

(Continued from page 33)

	Booth No.
HARNISCHFEGER CORP. Milwaukee, Wisc.	425, 426
HARRINGTON CO. 1642 W. Callow Hill St. Philadelphia, Pa.	303
HYDRAULIC EQUIPMENT CO. 110 East 222 St. Cleveland, Ohio	731
INDUSTRIAL EQUIPMENT CO. Chicago, Ill.	413, 414
R. B. LATCH ENGINEERING CO. Milmont Park, Pa.	18
LULL MFG. CO. 3612 East 44 St. Minneapolis, Minn.	723, 724, 725
MANNING, MAXWELL & MOORE, INC. Shaw-Box Crane & Hoist Div. Muskegon, Mich.	726
ROBBINS & MYERS, INC. 1345 Lagonda Ave. Springfield, Ohio	133
DAVID ROUND & SON Broadway & Henry Sts. Cleveland, Ohio	215
SAGINAW PRODUCTS CORP. 68 Williamson Saginaw, Mich.	146
SILENT CRANE & HOIST CO. Brooklyn, N. Y.	623, 624
WHITING CORP. Harvey, Ill.	809
WRIGHT MANUFACTURING DIV. American Chain & Cable Co. York, Pa.	306, 307
YAL & TOWNE MFG. CO. 4530 Tacony Ave. Philadelphia, Pa.	521, 523
Monorail, Carriers and Accessories	
AMERICAN MONORAIL CO. 13107 Athens Ave. Cleveland, Ohio	326, 327
BENBOW MFG. CO. Box 589 Redwood City, Calif.	17
COFFING HOIST CO. Danville, Ill.	54
CONCO ENGINEERING WORKS Mendota, Ill.	825
DAVID ROUND & SON Broadway & Henry St. Cleveland, Ohio	215
WHITING CORP. Harvey, Ill.	809
Motors, Valves and Pumps	
ERIE ENAMELING CO. Erie, Pa.	35
FAIRBANKS CO. 393 Lafayette St. New York, N. Y.	105
HYDRAULIC EQUIPMENT CO. 1100 E. 222 St. Cleveland, Ohio	731
PESCO PRODUCTS DIV., BORG-WARNER CORP. Cleveland, Ohio	820, 821
SERVICE SUPPLY CORP. 20 & Erie Philadelphia, Pa.	729, 730
STAR ELECTRIC MOTOR CO. 200 Bloomfield Ave. Bloomfield, N. J.	13
Pallets, Skids and Boxes	
ACME PALLET CO., INC. 15 Park Row New York, N. Y.	22, 23
ADDISON SEMMES CORP. Racine, Wisc.	611
BARRETT-CRAVENS CO. 4613 S. Western Blvd. Chicago, Ill.	331, 408
FAB-WELD CORP. Richmond & Pickwick St. Philadelphia, Pa.	727
INDUSTRIAL WASHING MACHINE CORP. New Brunswick, N. J.	336
IRONBOUND BOX & LBR. CO. 46 Hoffman Place Hillside, N. J.	807
L & H WOOD MFG. CO. 33119 Grand River Farmington, Mich.	39
THE LANHAM CO. 12th & Magnolia Sts. Louisville, Ky.	510

**Your
Materials Handling
Costs Can Be
Reduced**

Find out how much!

**Is Your Materials Handling
system as modern as your
production line?**

Have it checked!

**Our practical engineers,
with 22 years operating and
engineering experience will
make a preliminary survey
without charge.**

*Write or phone us for an
Appointment*

Gemar Associates
MATERIALS HANDLING CONSULTANTS
Greenwich, Connecticut
Phone 8-6766

G. B. LEWIS CO. Watertown, Wisc.	Booth No. 701
MAGNESIUM CO. OF AMERICA East Chicago, Ind.	621
MIDWEST PALLET CORP. 327 Lemcke Bldg. Indianapolis, Ind.	24
MONROE AUTO EQUIP- MENT CO. Monroe, Mich.	304, 305
NATIONAL METAL EDGE BOX CO. 330 N. 12 St. Philadelphia, Pa.	718
NATIONAL PALLET CORP. 1312 Oliver Bldg. Pittsburgh, Pa.	108
NATIONAL WOODEN BOX ASSN. Barr Bldg. Washington, D. C.	601
PACIFIC CHAIN & MFG. CO. 4200 N.W. Yeon Ave. Portland, Ore.	117
PALLET SALES CO. 122 East 42 St. New York, N. Y.	26
PITTSBURGH STEEL PROD- UCTS CO. Grant Bldg. Pittsburgh, Pa.	511

POWELL PRESSED STEEL CO. Hubbard, Ohio	Booth No. 512, 513
RACK ENGINEER- ING CO. 925 Liberty Ave. Pittsburgh, Pa.	805-A, 806
RE-BO MFG. CO., INC. 311 Madison Ave. New York, N. Y.	407
TRUSCON STEEL CO. Pressed Steel Div., 6100 Truscon Ave. Cleveland, Ohio	427
UNION METAL MFG. CO. 1432 Maple Ave., N.E. Canton, Ohio	620
UNION STEEL PROD- UCTS CO. 801 Pine St. Albion, Mich.	128-B
UNIVERSAL FOUR-WAY PALLET CO. 30 Huntington Ave. Boston, Mass.	53
WEST BEND EQUIPMENT CORP. West Bend, Wisc.	122
WIREBOUND BOX MFRS. ASSN. 105 S. LaSalle St. Chicago, Ill.	223
WOOD PALLET CO., INC. 419 Boylston St. New York, N. Y.	31

**Racks, Shelving &
Storage Partitions**

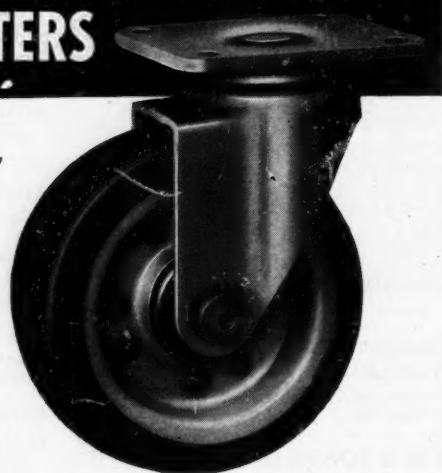
ACORN WIRE & IRON WKS. 5912 S. Lowe Ave. Chicago, Ill.	415
AMERICAN STEEL & IRON WKS. DIV. OF A. F. ANDERSON IRON WKS. 5801-21 South Lowe Ave. Chicago, Ill.	719
BARRETT-CRAVENS CO. 4613 S. Western Blvd. Chicago, Ill.	331, 408
EQUIPMENT MFG., INC. 21550 Hoover Rd. Detroit, Mich.	37, 38
RACK ENGINEER- ING CO. 925 Liberty Ave. Pittsburgh, Pa.	805-A, 806
TRUSCON STEEL CO. Pressed Steel Div. 6100 Truscon Ave. Cleveland, Ohio	427
UNISTRUT PRODUCTS CO. 1013 W. Washington Blvd. Chicago, Ill.	116

**One of 1458 LOAD-FLOATING
WORK-SAVING**



CASTERS

To meet every need exactly,
there are 1458 different
standard designs of Colson
casters—many of them con-
tinuously stocked for im-
mediate shipment. Long
notable for quality that has
made them the replace-
ment choice of industry,
they offer you big divi-
dends in faster hand-
ling, easier work and
reduced floor damage.
It pays you to get the
facts—write today for
free 68 page catalog.



Model No. 3-527-65 swivel fork caster, ideal for use
on medium weight industrial equipment. Double row of
ball-bearings in hardened raceways; heavy oversize king
bolt, patented lock nut. Built for years of rugged service.

THE COLSON CORPORATION

ELYRIA, OHIO

CASTERS • LIFT JACK SYSTEMS • INDUSTRIAL TRUCKS



Scales

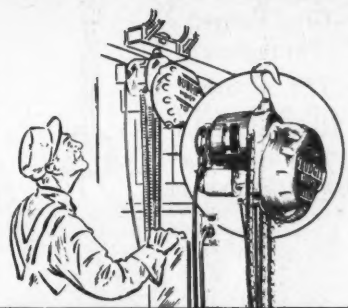
- TOLEDO SCALE CO.** 412
Toledo, Ohio
- YALE & TOWNE MFG. CO.** 521, 523
4530 Tacony Ave.
Philadelphia, Pa.

Shipping Room Supplies

- BETTER PACKAGES, INC.** 103
Shelton, Conn.
- DIAGRAPH-BRADLEY INDUSTRIES, INC.** 310
Herrin, Ill.
- GARLOCK PACKING CO.** 834
Palmyra, N. Y.
- A. J. GERRARD & CO.** 518
221 N. La Salle St.
Chicago, Ill.
- HANDLING DEVICES CO., INC.** 320
581 Boylston St.
Boston, Mass.
- IDEAL STENCIL MACHINE CO.** 4, 5
102 Iowa
Belleville, Ill.
- INLAND WIRE PRODUCTS CO.** 311
3947 S. Lowe Ave.
Chicago, Ill.
- MARSH STENCIL MACHINE CO.** 29, 30
Belleville, Ill.
- MULTISTAMP CO., INC.** 52
Norfolk, Va.
- SHERMAN PAPER PRODUCTS CORP.** 115
1941 Sherman St.
Newton Upper Falls, Mass.
- SIGNODE STEEL STRAPPING CO.** 708
2600 N. Western Ave.
Chicago, Ill.
- SISALKRAFT CO.** 47
205 W. Wacker Dr.
Chicago, Ill.
- WEBER ADDRESSING MACHINE CO.** 48
200 W. Central Rd.
Mt. Prospect, Ill.

Specialties

- DEMPSTER BROS.** 328, 329, 330
(Truck Mounted Hoisting Unit)
with Detachable Containers)
Knoxville, Tenn.
- GENERAL ELECTRIC COMPANY** 733, 734
1 River Road
Schenectady, 5, New York
(25-ton diesel electric locomotive,
ACA Gear Motor, etc.)
- LANSING INDUSTRIAL SALES CO.** 21
2301 W. Main St.
Lansing, Mich.
- NEW BRITAIN-GRIDLEY MACHINE DIV., NEW BRITAIN MACHINE CO.** 128-A
(Machine Tools, Hand Tools,
Shop Furniture)
South St.
New Britain, Conn.
- R. M. SLOAN EQUIPMENT CO.** 11
P. O. Box 155
Glenview, Ill.
- Steel Strapping, Strapping Tools**
- ACME STEEL CO.** 705
2840 Archer Ave.
Chicago, Ill.
- BRAINARD STEEL CO.** 505
Warren, Ohio
- INLAND WIRE PRODUCTS CO.** 311
3947 South Lowe Avenue
Chicago, Ill.
- SIGNODE STEEL STRAPPING CO.** 708
2600 North Western Ave.
Chicago, Ill.
- THE STANLEY WORKS** 12
Steel Strapping Div.
New Britain, Conn.
- Tables—Elevating & Feeding; Positioners**
- BARRETT-CRAVENS CO.** 331, 408
4613 S. Western Blvd.
Chicago, Ill.
- BOND FOUNDRY & MACHINE CO.** 147
Manheim, Pa.



Double savings!

Costs go down, production and profits go up when you install a portable 'Budgit' Electric Hoist to do your lifting for you. The fast, easy lifting action of a 'Budgit' Hoist makes it possible for your workers on production, assembly, and inspection lines to turn their energy into increased production once they're free from the drudgery and danger of manual lifting. That's how operating costs go down, compensation expenses decrease, profits rise — double savings!

There's another advantage to installing 'Budgit' Hoists to do your lifting. Being a complete lifting unit in itself, a 'Budgit' Hoist needs no additional equipment nor is there any installation expense connected to a 'Budgit.' You simply hang it up, plug into the nearest electric socket, and use!

Made in sizes to lift 250, 500, 1000, 2000 and 4000 lbs. Prices start at \$119. Write for Bulletin No. 371.



'BUDGIT' Hoists

MANNING, MAXWELL & MOORE, INC.
MUSKEGON, MICHIGAN

Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves, and 'American' industrial instruments.

**Drop Forged
Throughout
The Superior
MERRILL-VOLZ
Two Principle
GRIPPING CLAMP**

is specifically designed for gripping and lifting objects with Flat Surfaces.

Has a 5 to 1 Safety Factor; each Clamp tested 100% overload. Simply slip it on to the business end of your hoist and it "takes hold" instantly. As easy as that.



Safe
•
Rapid
•
Positive
•
Economical

MERRILL Brothers

56-20 Arnold Avenue Maspeth, N. Y.

HARNISCHFEGER CORP. 425, 426
Milwaukee, Wisc.

LYON-RAYMOND CORP. 710, 711
6677 Madison St.
Greene, N. Y.

MAY-FRAN ENGINEERING, INC. 628
1710 Clarkstone Rd.
Cleveland, Ohio

REVOLVATOR CO. 613
2008 86th St.
North Bergen, N. J.

See pages 34 and 35 for the program of the Material Handling Conference. This Conference runs the full week of the show.

Tractors, Trailers

BARRETT-CRAVENS CO. 331, 408
4613 S. Western Ave.
Chicago, Ill.

BUDA CO. 410, 411
Harvey, Ill.

MERCURY MFG. CO. 324, 325
4044 So. Halsted St.
Chicago, Ill.

Booth No.



Booth No.

SCHWITZER-CUMMINS CO. 337
1145 E. 22 Street
Indianapolis, Ind.

SERVICE CASTER & TRUCK CORP. 520
Albion, Mich.

**Trucks, Dollies —
Manually Propelled**

AMERICAN PULLEY CO. 403
4200 Wissahickon Ave.
Philadelphia, Pa.

ARROW PRODUCTS, INC. 46
343 Indiana Ave., N.W.
Grand Rapids, Mich.

WM. BAL CORP. 517
2 Johnson St.
Newark, N. J.

BARRETT-CRAVENS CO. 331, 408
4613 S. Western Blvd.
Chicago, Ill.

BOND FOUNDRY & MACHINE CO. 147
Manheim, Pa.

E. W. BUSCHMAN CO., INC. 509
Clifton & Spring Grove Ave.
Cincinnati, Ohio

IRA L. CONKLING CO. 50
Ardmore, Pa.

DARNELL CORP. 15
60 Walker St.
New York, N. Y.

ELIZABETH IRON WORKS, INC. 828, 829
P. O. Box 360
Elizabeth, N. Y.

FAB-WELD CORP. 727
Richmond & Pickwick Sts.
Philadelphia, Pa.

FAIRBANKS CO. 105
393 Lafayette St.
New York, N. Y.

HANDLING DEVICES CO., INC. 320
581 Boylston St.
Boston, Mass.

IRONBOUND BOX & LBR. CO. 807
46 Hoffman Place
Hillside, N. J.

KEEN MFG. CO. 104
Dogwood & Ivy Sts.
Harlingen, Texas

LANSING CO. 40
603 North Cedar St.
Lansing, Mich.



**HERE'S WHERE
OLSON CONVEYORS
PAY THE FREIGHT**

• Interior freight... material handling... counts heavily in distribution costs. That's why Hibbard, Spencer, Bartlett & Co. turned to Olson for a complete conveyor system to cut costs in this new wholesale warehouse. (Inset: In the office too, to handle order and

billing correspondence.) Olson conveyors include all types necessary to cut material handling costs in any business or industry. Why not find out what Olson equipment can do for you... today!



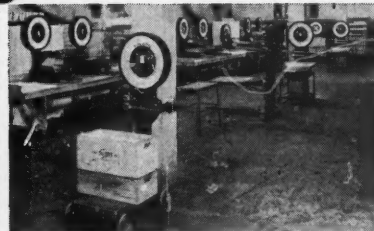
SAMUEL OLSON MFG. CO., INC.

2426 Bloomingdale Ave., Chicago 47, Illinois

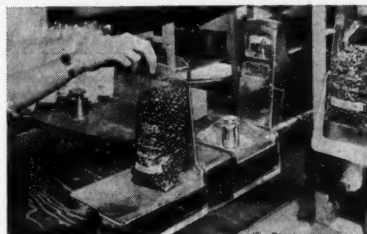
LIFT TRUCKS, INC. 2425 Spring Grove Ave. Cincinnati, Ohio	Booth No. 114
LYON-RAYMOND CORP. 6677 Madison St. Greene, N. Y.	710, 711
MAGLINE, INC. Pinconning, Mich.	10
MAGNESIUM CO. OF AMERICA East Chicago, Ind.	621
MECHANICAL HANDLING SYSTEMS 4600 Nancy Ave. Detroit 12, Mich.	721, 722, 813, 814
NUTTING TRUCK & CASTER CO. 1125 W. Division St. Faribault, Minn.	333
ORANGEVILLE MFG. CO. Orangeville, Pa.	622
RACK ENGINEERING CO. 925 Liberty Ave. Pittsburgh, Pa.	805-A, 806
RAPIDS-STANDARD CO., INC. 43 Grandville Ave., S.W. Grand Rapids, Mich.	112, 113
RE-BO MFG. CO., INC. 331 Madison Ave. New York, N. Y.	407
REVOLVATOR CO. 2008 86th St. North Bergen, N. J.	613
SERVICE CASTER & TRUCK CORP. Albion, Mich.	520
SKARNES ENGINEERING & SUPPLY, INC. 2428 Riverside Minneapolis, Minn.	819
STEVENS APPLIANCE TRUCK CO. Box 897 Augusta, Ga.	49
THOMAS TRUCK & CASTER CO. Keokuk, Iowa	106, 107
TRUCK-MAN, INC. 1410 W. Ganson St. Jackson, Mich.	137
UNIT MFG. CO. 168 E. Hosack St. Columbus, Ohio	3
WELLINGTON MACHINE CO. 133 De Wolf St. Wellington, Ohio	51
WEST BEND EQUIPMENT CORP. West Bend, Wisc.	122
YALE & TOWNE MFG. CO. 4530 Tacony Ave. Philadelphia, Pa.	521, 523
PAUL O. YOUNG CO. 7th & Cheltenham Ave. Philadelphia, Pa.	15



COUNTING SCALES—These Toledo Scales count small parts rapidly and accurately.



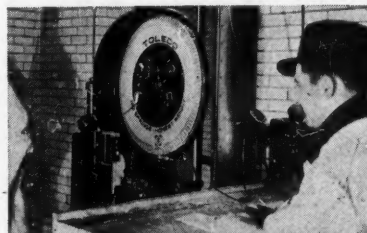
PORTABLE AND BENCH SCALES—Widely used for weight-and-cost-control throughout modern plants.



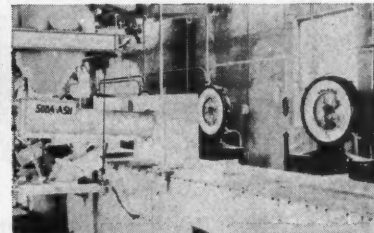
OVER-UNDER SCALES—The Speedweigh saves time in packing, filling, check weighing.



TOLEDO PRINTWEIGH SCALES stop errors... print BIG figures—ACCURATE weights—with split-second speed!



SHIPPING AND RECEIVING SCALES—Toledo Accuracy prevents small errors from multiplying into big losses!



BATCHING SCALES—Toledos save time and safeguard quality... make batching quick and sure.

Guard Costs with
TOLEDO
All the Way!

SEND for >
 Bulletin No. 2020.
 Toledo Scale Co.
 Toledo 12, Ohio





Trucks—Powered and Accessories

	Booth No.
ATLANTIC DISTRIBUTORS, INC. 44 5200 Van Dam St. Long Island City, N. Y.	
AUTOMATIC TRANSPORTA- TION CO. 524, 525, 604, 605 101 W. 87th St. Chicago, Ill.	
BAKER INDUSTRIAL TRUCK DIV., BAKER-RAULING CO. 608-B, 609 2168 W. 25th St. Cleveland, Ohio	
BARRETT-CRAVENS CO. 331, 408 4613 S. Western Blvd. Chicago, Ill.	
BELL AIRCRAFT CORP. 129 P. O. Box 1 Buffalo, N. Y.	
BUDA CO. 410, 411 Harvey, Ill.	

	Booth No.
BUTLER BIN CO. Carscoop Div. Waukesha, Wisc.	316, 317
CLARK EQUIP- MENT CO. 526, 527, 602, 603 Tractor Div. West Champion St. Battle Creek, Mich.	
COMET MFG. CO., INC. 34 9253 Nicollet Ave. Minneapolis, Minn.	
CRESCENT TRUCK CO. 138, 144 Lebanon, Pa.	
DEMPSTER BROS. 328, 329, 330 Knoxville, Tenn.	
ELWELL-PARKER ELECTRIC CO. 615, 616, 713, 714 4205 St. Clair Ave. Cleveland, Ohio	
ERIE ENAMELING CO. 35 Erie, Pa.	
GETMAN BROS. 131 South Haven, Mich.	
FRANK G. HOUGH CO. 606 Libertyville, Ill.	
HYSTER CO. 428, 429, 430, 506, 507, 508 Portland, Ore.	
KALAMAZOO MFG. CO. 334, 335 1827 Reed Street Kalamazoo, Mich.	

	Booth No.
LEWIS-SHEPARD PRODUCTS INC. 625, 626, 627, 702, 703, 704 125 Walnut St. Watertown, Mass.	
LULL MFG. CO. 723, 724, 725 3612 E. 44 St. Minneapolis, Minn.	
MERCURY MFG. CO. 324, 325 4044 So. Halsted St. Chicago, Ill.	
READY-POWER CO. 435 Kales Bldg. Detroit, Mich.	
REVOLVATOR CO. 613 2008 86th St. North Bergen, N. J.	
ROSS CARRIER CO. 617, 618, 619 Benton Harbor, Mich.	
SCHWITZER-CUMMINS CO. 337 1145 E. 22 St. Indianapolis, Ind.	
SERVICE CASTER & TRUCK CORP. 520 Albion, Mich.	
SILENT HOIST & CRANE CO. 633, 624 Brooklyn, N. Y.	
TOWMOTOR CORP. 502, 503, 504, 432, 433, 434 1226 E. 152nd St. Cleveland, Ohio	
TRACT-R-LIFT CORP. 735 605 N. Aberdeen St. Chicago, Ill.	
TRANSITIER SALES CORP. 402 Ridge Ave. & Spring Garden St. Philadelphia, Pa.	
TRUCK-MAN, INC. 137 1410 W. Ganson St. Jackson, Mich.	
WEST BEND EQUIPMENT CORP. 122 West Bend, Wisc.	
YALE & TOWNE MFG. CO. 521, 523 4530 Tacony Ave. Philadelphia, Pa.	

FLOOR TRUCKS

STANDARD AND SPECIAL

WE INVITE YOU TO VISIT US AT BOOTH NO. 622
AT THE MATERIALS HANDLING EXPOSITION
IN PHILADELPHIA, JAN. 10TH TO 14TH



WHEELS: Metal - Rubber - Pneumatic



KEEP LOADS ALIVE



We take pride in our product and guarantee satisfactory performance and sturdy, long time operation under the most severe use. Agencies in most principal cities. Catalog gladly furnished upon request. Repeat orders testify to the efficiency of our trucks.

MAIN OFFICE AND FACTORY
ORANGEVILLE MFG. CO.

Established 1879
ORANGEVILLE, PENNA.



Winches; Car Pullers

AMERICAN ENGINEERING CO. 109 Philadelphia, Pa.	
CHISHOLM-MOORE HOIST CORP. 826, 827 Fremont Ave. Tonawanda, N. Y.	
COFFING HOIST CO. 54 Danville, Ill.	
JOYCE-CRIDLAND CO. 144 2027 E. First St. Dayton, Ohio	
SILENT HOIST & CRANE CO. 623, 624 Brooklyn 20, N. Y.	



The publications featured on these pages were written by experts. They are FREE publications. To obtain these use the postcard bound into this issue.

25—Casters and Wheels . . . A new catalog, No. CW48, has been issued by the Thomas Truck and Caster Co. Thoroughly illustrated, it gives complete specifications of the company's line of rigid and swivel casters with semi-steel, machined-face metal and rubber-tired wheels. Information concerning steel, rubber-tired and pneumatic-tired truck wheels is also included.

26—Crane Truck . . . The Baker-Raulang Co. is offering a bulletin on its locomotive-type crane truck. Its 10,000-pound capacity model is suited for erection work, for combined lifting and transporting operations, for placing work in machines, etc. Included are pictures, engineering data and specifications.

27—Barrel Hoist . . . The Ketchpel Engineering Co. is offering a pamphlet describing its Model 21 barrel hoist. This portable unit has a capacity of 500 pounds with a tray 20" wide and 50" long. It is designed for loading trucks in the yard or raising two beer kegs when stacking three high in cooling rooms. Specifications and operating features are given.

28—Conveyors . . . Belt, roller and pneumatic conveyors are the subject of a catalog issued by the Lamson Corp. Pictures illustrate industrial applications and operating features. Drawings and specifications are included.

29—Weight Control Unit . . . A two-color, six-page brochure is available from the Fred Goat Co., on its automatic weight indication and control device for package filling machines. The model check weighs every package and warns the operator whenever the filling machine fills above or below the required amount.

30—Heat Sealing Equipment . . . The Wrapade Machine Co. is offering a pamphlet illustrating and describing its heat sealing crimpers. Automatic and semi-automatic models are shown. These are designed for crimping and sealing envelopes or bags of heat-sealing foil, cellophane and similar materials.

31—Box Nailing Machines . . . An eight-page, two-color booklet has been

issued by the Morgan Machine Co. Pictured and described is its line of open-back nailing machines designed for cleating, framing, and bottom nailing. Standard and optional features, specifications, and general nailing information are given.

32—Hoists . . . Bulletin No. 838, describing cranes, hoists and hoist-controls, is available from the Euclid Crane & Hoist Co. Photos illustrate completed units as well as component parts. Over 10 models are shown together with operating features, industrial applications, specifications and engineering data.

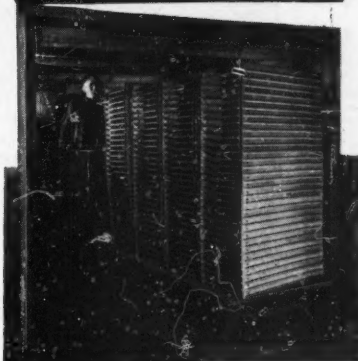
33—Foundry Shakeout . . . From the Robins Conveyors Division, Hewitt-Robbins Inc., a bulletin No. 124-B, "Floatex Foundry Shakeouts and other Hewitt-Robbins Products for Foundries." Innovations in the foundry industry are covered, particularly the latest move toward complete mechanization of operations.

34—Reduction Units . . . A 16-page illustrated catalog has been published by Link-Belt Co. It covers double and triple reduction units with integrally mounted electric motor, in standard sizes of 1 to 30 H.P. with an output speed range of 280 to 6 rpm. The catalog tabulates the various sizes of gearmotors available; gives dimensions, and average weights, includes load-classification and selection tables; and gives dimensions of slide rails.

35—Bag Closing Equipment . . . A complete line of machines for closing multiwall paper bags is described in an eight-page folder issued by the International Paper Co. The machines will close up to 15 multiwalls per minute. Tape may be pasted over the closures, making them moisture-resistant and providing protection against contamination, infestation and sifting.

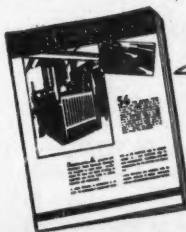
36—Industrial Scales . . . "Better Ways" is the title of a booklet by the Toledo Scale Co. It describes various types of scales and their applications to modern industrial problems. Pictured are giant scales able to weigh loaded coal cars and motor trucks, down to delicate models able to measure the minute change in the weight of small animal specimens.

a Better ELEVATOR for INDUSTRY



GLOBE for YOUR
INDUSTRIAL PLANT
ELEVATORS or
Warehouse

You save on first cost, and on upkeep, with this Globe Elevator . . . specialized for industry. Simplified in design, rugged in construction, with advanced safety features, it's ENGINEERED for heavy plant and warehouse use. Low installation cost, very low upkeep, no pent house required. Push-button control; hydraulic or electric. Before you buy a new elevator



Write for BULLETIN

Full details on the savings you can make. Illustrations, blueprints, prices. Write today for Bulletin F3.

GLOBE
LIFTS and ELEVATORS
GLOBE HOIST COMPANY
Philadelphia 18, Pa. Des Moines 6, Ia.

... IN ANY SHOW

THIS TRUCK STANDS OUT!



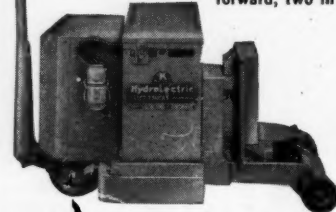
See the
Hydroelectric K
Exclusive...

Money-saving features

At the Philadelphia show be sure to see the Hydroelectric K, engineered and patented by Stuebing... the Lift Truck with the NEWEST features.

The lowest-cost, most dependable truck you can buy, the 'K' is the ONLY TRUCK with sealed, differential gear drive. You'll see this internal drive in operation at the show. (NO CHAINS to break or cause expensive downtime.) Four wheels for greater stability.

New, improved finger-tip controls... just three buttons control two speeds forward, two in reverse and dynamic brakes.



Hydroelectric KTL

A modification of the Hydroelectric K, the "KTL" is a new, Stuebing engineered tractor for use with semi-live skids. Specifications same as for the 'K'. Can also be furnished as a tractor, model 'KT', for use with four-wheel floor trucks. See it at the show!

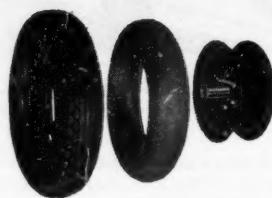
Write for bulletin L.

LIFT TRUCKS INCORPORATED

2425 Spring Grove Ave.

Cincinnati 14, Ohio

Manufacturers!
WE CAN
FURNISH YOUR
INDUSTRIAL WHEELS



FACTORY ASSEMBLED UNITS

Let us figure with you on your requirements. Complete satisfaction and prompt service guaranteed. Our specialty is the manufacture of industrial wheels in the following sizes: 6 x 2, 6 x 2 lug, 8 x 1, 8 x 2.00, 8 x 2.50, 10 x 2.75, 12 x 3.00, 4.00 x 8, 10 x 2.00, 12 x 2.00 and 16 x 4.00.

Also a complete line of Juvenile wheels.

All wheels are equipped with highest quality ball or roller bearings and tires are solid or pneumatic with tubes.

SEND FOR FULL
INFORMATION

CITY MACHINE CO.

1095 HOME AVE.
AKRON 10, OHIO



Older and more Durable
THAN THE
PYRAMIDS

are the ingredients of
Camp's #7
INDUSTRIAL
FLOOR RESURFACER

TOUGHER THAN STEEL

NON-SLIP—EASY TO APPLY

No. 7 Resurfacer has no equal for resurfacing and patching industrial trucking floors. A 1/4" thickness is sufficient for resurfacing worn out or rough concrete floors to withstand any traffic—Foot Traffic or Extra Heavy Trucking.

Over wood floors No. 7 may have to be applied thicker than 1/4" depending on the floor condition. Write or phone for recommendations.

SETS IN 3 to 4 HOURS—

No. 7 Industrial Resurfacer sets in about three or four hours—is ready for heavy trucking in 24 to 48 hours, depending on the temperature and drying conditions; and is ready in 24 hours if subject to only foot or light traffic.

READY FOR MIXING—

No. 7 INDUSTRIAL RESURFACER comes to you ready-for-mixing-on-the-job. No other materials are required.

Colors: Natural (dark grey), Dark Red, Dark Brown. Packaging or Unit Size:

4 50-lb. bags of powder
1 5-gallon can of Campcrete Liquid
Coverage: 100 square feet about 1/4" thick to each Unit.

FLOORING MATERIALS
for practically
EVERY PURPOSE

from
COAST to COAST

CONSULT US ON YOUR
FLOORING PROBLEMS
WITHOUT OBLIGATION

6938 S. STATE ST.
CHICAGO 21, ILLINOIS

The CAMP COMPANY, INC. TRIANGLE 4-4770-T-2

buy what the
biggest users buy!

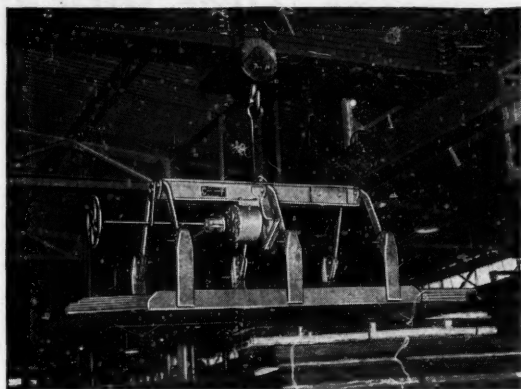
There's an ACME pallet for every
operation!



ACME
LONGLIFE
PALLET

Plants throughout
the U. S.
for DELIVERY EVERYWHERE!
WRITE FOR QUOTATIONS

ACME PALLET CO., INC.
22 PARK ROW, NEW YORK 7, N.Y.
BECKMAN 3-6646



Save Time... Save Sheets

Handle loose or bunched sheets with one of these C-F Lifters and you save TIME and SHEETS, because C-F Lifters under one man end control can handle more sheets per load safer, faster and more economically. Tong action grips loads tightly, yet design features like wide bearing surfaces give full protection to stock edges. End control of C-F Lifters permits closer stocking of piles—resulting in more efficient use of storage facilities. C-F Lifters are available in capacities from 2 to 60 tons or larger, in standard or semi-special designs.

Write for the bulletin "C-F Lifters"

CULLEN-FRIESTEDT CO.

1320 South Kilbourn Ave.

Chicago 23, Illinois

IT'S EASY
to remove TRAMP METAL
with HOMER PERMANENT
non-electric MAGNETIC
SEPARATORS



PLATES—Sizes from 4" to 48"
Single or triple gap



PULLEYS—Sizes from 12" to 36" dia.
Belt widths 4" to 60"



DRUMS—Sizes from 12" to 36" dia.
Face widths 4" to 60"



LIQUID TRAPS—
Pipe sizes to 18" dia.



PNEUMATIC HUMPS—
To fit pipe diameters 3" to 20"



UNITS (Portable)—Sizes from 12" to 36"
dia. Belt widths 4" to 60". Lengths to
specification

Homer The HOMER MANUFACTURING CO., Inc.
DEPT. 1-11 LIMA, OHIO
Producers of Magnetic Separator Equipment Since 1923

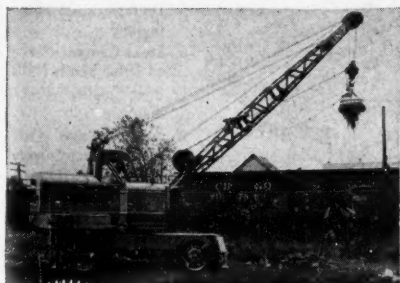


- It's Self-Propelled
- It Rides on Rubber
- It Has 1001 Uses!

UNIT 357 Mobile Crane

Fast, versatile industrial crane with plenty of LIFT ability... ideal for moving castings, steel, scrap, coal, lumber or even machine tools. Travels anywhere... on paved surfaces, cinders or just plain mud... gets there in a hurry. Available with crane hook, clamshell, or magnet... quickly convertible to any other attachment. Operated by ONE man... powered by ONE engine... controlled from ONE position in cab.

Features include: Hydraulic steering... Air-actuated hydraulic brakes... One-piece cast gear case completely encloses and oil-seals all working parts. FULL VISION CAB, pioneered by UNIT, provides 360° visibility for greater safety and efficiency.



UNIT 357 Magnet used in loading scrap metal.



UNIT 357 Crane lifting bar stock.



UNIT 357 Clamshell unloading sand.

You can tell it's a UNIT
by the FULL VISION CAB.
There's no other cab like it.

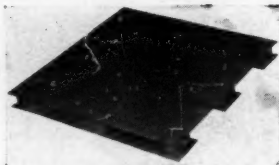


UNIT CRANE & SHOVEL CORP.

6531 WEST BURNHAM STREET
MILWAUKEE 14, WIS., U.S.A.

Solve SHIPPING and HANDLING PROBLEMS

with
Addison-Semmes
EXPENDABLE
PALLETS!



Double Face



Single Face

We can prove to you that our corrugated paper board pallets are satisfactory in every way. Eliminate the job of handling, loading and returning wooden pallets.

WE WILL DESIGN A PALLET FOR YOUR NEEDS

Pallets are constructed using any combination of corrugated paper board decks securely glued to round corrugated board paper posts 5 to 8 inches in diameter. Decks can be made with standard 200 lb. test board up to and including 600 lb. test double wall corrugated board.

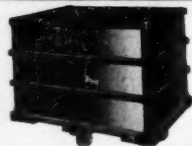
Send for
Catalog
Giving Full
Information

ADDISON-SEMMES CORP.

1800 Thurston Ave.

Racine, Wisc.

**COST LESS — because
they LAST LONGER!**



STURDY FIBRE
Rack, Shelf or Bin
TRUCKS

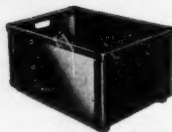
all sizes in hard

vulcanized fibre, steel hardware, maple reinforced
and oak bottoms.

FOR MATERIAL HANDLING

rugged, rigid, light-
weight & long-wearing
vulcanized fibre

**TOTE
BOXES**



all sizes, REINFORCED with or
without compartments.

ASK FOR DETAILS

Visit our Booth No. 517
at the Third National
Materials Handling Ex-
position, Philadelphia
Convention Hall, Jan-
uary 10 to 14, 1949.



WILLIAM BAL CORPORATION

11 Johnson Street, Newark 5, N. J.

New York Office—239 West 39th St., New York 18, New York

THE First TRUCK LOADER

CUTS DELIVERY COSTS 50%

**ANTHONY
LIFT GATE**
HYDRAULIC



First in sales—Thousands in use.
First in field proving—On the market 6
years. First in simplicity—75% fewer working parts.

First in features—More advantages to the user. See below.

Write for literature and prices.



*"LIFT GATE" rests on
ground. No protrusions
to prevent easy loading.

*Loads from all sides at
all levels with "Quick
Detachable" Ramp.

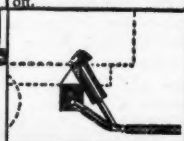
*Non-sloping—Gives
"Level-lift" to avoid
loads rolling or toppling
off.



*Close "Gate" easily with
one hand. No power
needed.



*Safety Latch locks up.
"LIFT GATE" cannot
be lowered accidentally.



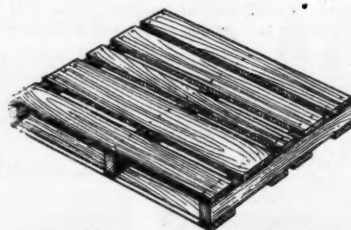
*Lower "Point of Lever-
age" gives more power
with 1/4 less working
parts.

ANTHONY CO., Dept. 921, STREATOR, ILL.

STEEL LEG SKIDS and PALLETS



**100% OAK AND STEEL
CONSTRUCTION**



**LUMBER: No. 2 and BETTER
AIR SEASONED OAK**

FOR USE WITH
HAND AND
FORK LIFT TRUCKS

Factory Prices

1. Manufactured to
YOUR Requirements
2. Minimum Initial
Cost
3. Prompt Delivery
4. Rugged, Durable and
Efficient
5. Uniform (assembled
in jigs)
6. Steel Cement Coat-
ed Drive Screw Nails
7. Best Quality Work-
manship
8. Ask About Our
Maintenance Service

**INQUIRIES
ANSWERED ON DAY
RECEIVED**

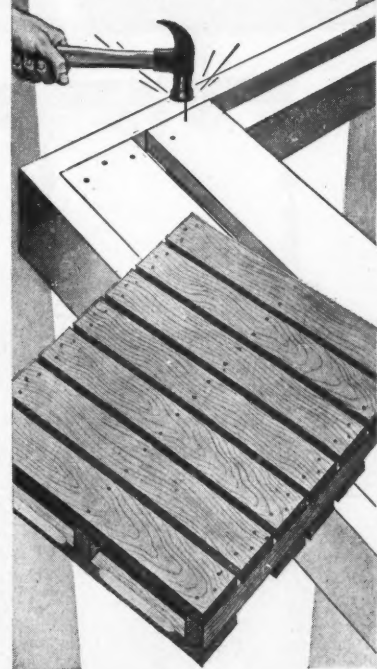
BATH WOOD PRODUCTS CO.
OWINGSVILLE, KENTUCKY

Entire Production Devoted to Pallets and Skids

INDEX OF ADVERTISERS

ABC Packaging Machine Corp.	61	Keen Mfg. Co.	82
Acme Pallet Co., Inc.	124	Lamson Corp.	98
Acme Steel Co.	77	Lanham Co.	110
Addison-Semmes Corp.	126	LeTourneau, R. G.	17
Aerol Co.	114	Lewis-Shepard Products, Inc.	78, 79
Aeroquip Corp.	67	Lift Trucks, Inc.	124
Albion Industries	115	Logan Co., Inc.	112
Alvey-Ferguson Co.	87	Lyon-Raymond Corp.	23
American Chain & Cable Co., Ford Div.	32		
American Monorail Co.	56, 57	Magnesium Co. of America	115
Anthony Co.	126	Manning, Maxwell & Moore, Inc.	119
Appleton Electric Co.	80	Market Forge Co.	116
Arkansas Pallet Corp.	114	Marsh Stencil Co.	109
Automatic Transportation Co.	1	Mathews Conveyor Co.	84
		May-Fran Engineering, Inc.	101
Baker-Raulang Co.	10	Meloox Mfg. Co.	116
Wm. Bal Corp.	126	Mercury Mfg. Co.	41
Bassick Co.	11	Merrill Bros.	120
Bathwood Products	126	Milwaukee Power Co.	111
Bell Aircraft Corp.	19	Mobilift Corp.	59
Bigelow-Garvey Lbr. Co.	94	Morgan Lbr. Sales Co.	61
Bond Foundry & Machine Co.	49	Moto-Truc Co.	68
Brainard Steel Co.	21	Multistamp Co.	111
Buffalo Caster & Wheel Corp.	105		
E. W. Buschman Co.	47	Nolan Co.	62
C & D Batteries, Inc.	24	The Oliver Corp.	70
The Camp Co.	124	Samuel Olson Mfg. Co., Inc.	120
Chisholm-Moore Hoist Corp.	54	Orangeville Mfg. Co.	122
City Machine Co.	124		
Clark Equipment Co.	62, 63	Pallet Engineering Co.	81
Coburn-Foster Conveyor Co.	82	Palletier	75
Colson Corp.	118	Pallets, Inc.	117
Colson Equipment & Supply Co.	60	Palmer Shile Co.	128
Conco Engineering Works	45	Phillips Mine & Supply Co.	18
Conveyor Specialty Co., Inc.	113		
Crescent Truck Co.	46	Rack Engineering Co.	45
Cullen-Friestedt Co.	125	Rapids-Standard Co.	55
Curtis Mfg. Co.	40	Rathbone, Hair & Ridgeway Co.	91
		Ready-Power Co.	85
C. R. Daniels, Inc.	42	Revolator Co.	31
Darnell Corp.	103	Richards-Wilcox Mfg. Co.	92
Detroit Hoist & Machine Co.	74	Righter, Harry Co.	116
Dico Corp.	104	Robbins & Myers, Inc.	106
Divine Bros. Co., Inc.	90	Rocky Mt. Steel Products, Inc.	108
Durant Mfg. Co.	105	Rolock, Inc.	116
		Ross Carrier Co.	105
Economy Engineering Co.	53	Rotary Lift Co.	38
Thos. A. Edison, Inc.	88	Roura Iron Works	113
Electric Industrial Truck Assn.	13		
Electrolift Co.	110	Service Caster & Truck Corp.	74
Elwell Parker Electric Co.	5	Salsbury Corp.	95
Equipment Mfg. Co.	6	Schwitzer-Cummins Co.	15
		Shepard Niles Crane & Hoist Co.	86
Factory Service Co.	12	Sherman Paper Products Corp.	101
Fairbanks Co.	51	Silent Hoist & Crane Co.	124
Faultless Caster Corp.	Inside Back Cover	Skarnes Engineering & Supply Co.	93
		Speedways Conveyors, Inc.	111
Gemar Associates	118	Standard Conveyor Co.	50
General Box Co.	94	The Stanley Works	8
General Electric Co.	16, 20	Steel-Parts Mfg. Co.	52
General Tire & Rubber Co.	99		
Gerlinger Carrier Corp.	113	Thew Shovel Co.	87
A. J. Gerrard & Co.	82	Thomas Truck & Caster Co.	114
Getman Bros. Co.	109	Toledo Scale Co.	121
Globe Hoist Co.	123	Towmotor Corp.	29
Gould Storage Battery Corp.	2	Truck-Man, Inc.	107
		Truscon Steel Co.	73
Haiss Mfg. Co.	72		
Harnischfeger Corp.	Inside Front Cover	Union Wire Rope Co.	64, 65
Hertner Electric Co.	104	Unit Crane & Shovel Corp.	125
Homer Mfg. Co.	125	United Laboratories, Inc.	93
Frank C. Hough Co.	9	U. S. Tube & Foundry Co.	101
Hughes-Keenan Corp.	45		
Hyster Co.	100	Wayne Pump Co.	22
		Jervis B. Webb Co.	89
Industrial Handling Equipment Co.	58	West Bend Equipment Corp.	114
Industrial Pallet Co.	127	Whiting Corp.	93
Industrial Products Co., Inc.	74	Wilkie Co.	108
Industrial Washing Machine Corp.	14	Wilshire Power Sweeper Co.	87
Inland Wire Products Co.	75		
Ironbound Box & Lbr. Co.	4	Yale & Towne Mfg. Co.	7
Island Equipment Corp.	107		

IPCO PALLETS ARE "FRAME BUILT" TO LAST LONGER



Boards and stringers are held rigidly in a frame during assembly. #6 Helix drive-screws fix the boards securely to the stringers. These cement coated drive-screws have the non-split chisel point, are hand driven, and staggered. Not until the last screw has been driven is the pallet withdrawn from the frame. This method of construction assures maximum service.

Over 1,000,000 IPCO pallets have been sold to Industrial Plants, Railroads, Warehouses, Motor Transport, S. S. Lines, Airlines, Stevedores. Ask for our Palletization Bulletin. It will help you select the right type of pallet.

The IPCO representative is a materials-handling engineer. Consult him on your palletization problems—no obligation.

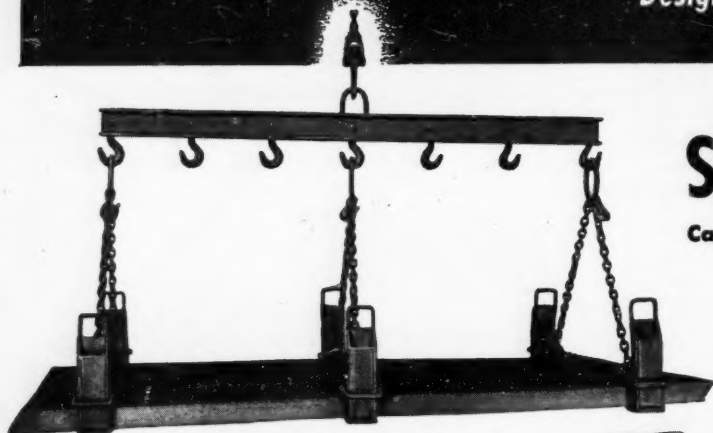


Industrial Pallet Co., Inc.
1616 Woolworth Bldg., New York 7
BArclay 7-8446-7

PALMER-SHILE

MATERIALS HANDLING EQUIPMENT

Designed to do Specific Jobs Better



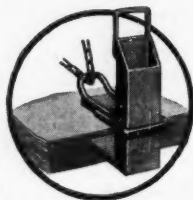
NS-364 Complete
(3 ton capacity)
\$15000

B-704 Complete
(5 ton capacity)
\$22500

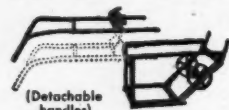
SHEET STEEL GRAB

Capacity 1, 2 and 3 tons (1 ton per sling)

Adaptable to any size lift of sheets within 0" to 9" in thickness, 18" to 48" in width, any length. For short bundles use one grab without beam, for average bundle use two grabs—for long, flexible bundles use three grabs. As illustrated, handles three tons. Holds without slippage, distortion or damage to stock. Adjustable for low head room. Supporting beam 6 feet long—carefully engineered and heavily constructed for extra safety and service.



Combination Truck and Drain Rack



Automatically loads barrels up to 1,000 lbs. with ease. Heavy all welded angle iron frame, tubular handles, free rolling wheels. Detachable handles for storage.

Trunnion Box Truck

Speeds handling. Of heavy bar stock, well reinforced, tubular handles, welded construction. Two 10" roller bearing metal wheels.

B-268 \$4500



B-290 T Box \$1865

12 gauge steel plate square trunnion box—18" x 18" x 24". (Minimum lots of 10.) Wt. 80 lbs.

We Design and Build all types of pick-up, loading, moving, shipping, dumping and storage materials handling equipment.



Industrial Dust Pan

S-703 \$1950

Sturdy, light to handle. Basket 16 gauge sheet steel 18" x 18" x 18"—frame all welded construction—8" rubber, ball bearing wheels. Wt. 45 lbs.—capacity 1 bushel.

Drum and Barrel Sling



Handles barrels, drums, kegs—anything with a lip. Half ton capacity. Heavy welded chain and forged grab hooks. Wt. 8½ lbs.



B-413

Double Face All Metal Pallet

Built for extra heavy duty—two way—for power fork truck only. Special rolled steel, corrugated. (Other sizes, types to order.)



Two Wheel Hand Truck

With safety knuckle guards—straight back for handling boxes, crates, bags, etc. Heavy 7" nose plate. Reinforced welded angle iron frame.

B-439ML \$2450
20" wide, 48" high, metal wheels

B-439RL \$2825
20" wide, 48" high, rubber tired wheels



B-439MS \$2000
18" wide, 42" high, metal wheels

B-439RS \$2500
18" wide, 42" high, rubber tired wheels

NS-21M (Metal Wheels) \$3850

NS-21R (Rubber Tired Wheels) \$4645

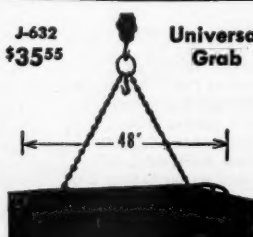


Turn Table Tilt Truck

All purpose use in warehouse or factory—turns in own radius. Platform 1½" hardwood 48" x 28"—reinforced. Roller bearing wheels—two swivel type. Wt. 75 lbs.

J-632 \$3555

Universal Grab



Hook type, picks up heavy boxes, crates, bales, from 16" to 48" across. Heavy forged steel hooks with adjustable spread. Capacity 2,000 lbs.

When Ordering

give full number to prevent error. All weights approximate, all prices f.o.b. Detroit, Mich. Prices subject to change without notice.

DESIGNED AND MANUFACTURED BY

Palmer-Shile Co.

16012 Fullerton Ave., DETROIT 27, MICH.

NOELTING

engineered
CASTERS
for **INDUSTRY**

**DOUBLE BALL BEARING
SWIVEL CASTERS**

**RIGID PLATE
CASTERS**

**VULCANIZED
RUBBER TREAD
CASTERS**

**THREAD GUARDS
FOR TEXTILE
TRADES**

**V-GROOVED
WHEELS FOR
ANGLE IRON
TRACKS**

**A COMPLETE SELECTION
OF ENGINEERED CASTERS
DESIGNED FOR
EVERY TYPE OF DUTY**



**Save
costs 3 ways!**

1. PRODUCTION:

Higher production costs demand new *short cuts* ... from receiving to shipping platforms. Faultless Casters speed up the *flow of materials*.

2. MAN-HOURS:

Cutting handling time, accounting for over 20% of industry's man-hours, provides your greatest opportunity for gains in worker productivity—unit output.

3. FLOORS:

No need for costly floor alterations or floor covering—Faultless wheels are available for all types of floor surfaces and loads.

For further particulars, write for Catalog 156 or let our nearest sales-engineer submit suggestions for handling *your* caster problem, no obligation.

You'll be amazed when you see
Automatic's Sensational

NEW
Featherweight
Skylift
FORK TRUCK



at National Materials Handling
Exposition **BOOTH 604**

SEE THIS AMAZING
FEATHERWEIGHT
FORK TRUCK
IN DRAMATIC
DEMONSTRATION
—Booth 604

SPECIALLY DESIGNED FOR BUILDINGS WHERE LIGHT
FLOOR CONSTRUCTION HAS MADE IT IMPOSSIBLE
TO OPERATE MONEY-SAVING MATERIAL HANDLING
FORK TRUCKS ECONOMICALLY!

- Featherweight—Handles loads up to $\frac{3}{4}$ of a ton without wasting truck capacity.
- Maneuvers in cramped quarters.
- Stacks at right angles in aisles narrower than eight feet.
- Automotive type controls.
- Pneumatic tires or solid tires available.
- Dual motor drive.
- Magnetic control.
- High pressure hydraulic lift and tilt.
- Collapsed height of 78 inches—lifts to 134 inches, with "free" lift of 68 inches before telescopic mechanism is extended.
- Retracting lift provides greater stability as load is raised.

AUTOMATIC TRANSPORTATION COMPANY
DIVISION OF THE YALE & TOWNE MFG. CO.
141 West 87th Street • Chicago 20, Ill.

